The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1605.—Vol. XXXVI. LONDON, SATURDAY, MAY 26, 1866. {STAMPED.....SIXPENCE. UNSTAMPED..FIVEPENCE.

MR. JAMES CROFTS, STOCK AND SHAREBROKER, No. 1, FINCH LANE, CORNHILL.
(Established 23 years.)

The Mining Market has very considerably improved in tone, and shares most enquired for are Great Laxey, Tincroft, Great Vor, Clifford, East Lovell, Chontales, Frontino and Bolivia, Chiverton, Marke Valley, and South Darren.

Mr. Crofts may be consulted as to the best course to pursue in dealing with Imperial Mercantile, and Overend, Gurney, and Co.'s shares, in transit from the Stock Exchange to registration, where it may be possible and prudent to avoid the latter.

BUYER of Prince of Wales and Great Wheal Busy.
SELLER of 10 East Laxey, 32s. 6d. net.
Bankers: National Bank of Scotland, Finch-lane.

MR. JAMES LANE, No. 44, THREADNEEDLE STREET, LONDON, E.C.

James Lane has FOR SALE at nett prices:—10 Bedford United, 22s. 6d.; 40 Bottle Hill, 2s.; 10 Camborne Vean, 21s.; 20 Chiverton, £6¼; 50 Cape Cornwall; 50 Caldbeck Fells, 20s.; 20 Chontales, £3¾; 10 Clifford, £9⅜; 50 Central Snailbeach, 28s. 6d.; 8 Clowance Wood (fully paid), 50s.; 25 Central Minera, 29s.; 20 East Caradon, £5¾; 30 Drake Walls, 7s. 6d.; 50 East Jane, 6s.; 20 East Carn Brea, £2; 20 East Rosewarne, 32s.; 5 East Lovell, £7⅛; 10 Frank Mills, £4⅛; 30 Frontino and Bolivia, 20s.; 30 Great Busy, 12s. 6d.; 10 Great Laxey, £22; 40 Great North Laxey, 40s.; 50 Great South Chiverton, 10s.; 5 Great Devon Maria, 5s.; 20 Hallenbeagle, 10s. 6d; 5 Great Wheal Vor, £16¾; 20 Marke Valley, £3¾; 5 Maudlin, 40s.; 20 North Treskerby, £2⅛; 20 New Wheal Lovell, 10s. 6d.; 5 North Roskear, £4; 50 Prince of Wales, 9s. 6d.; 500 Rossa Grande, 3s.; 20 Rosewarne United, 16s. 6d.; 100 Royalton, 10s. 6d.; 20 Rosewall Hill and Ransom United, 20s.; 20 Rosewarne Consols; 20 South Condurrow, 25s.; 5 South Crofty, £13¼; 50 St. Just United; 5 Spearne Moor, £5; 10 Trencrom, £3½; 200 Vale of Towy, 1s.

MR. LELEAN (Member of the Mining Exchange) BUYS and SELLS all descriptions of ENGLISH and FOREIGN STOCKS and SHARES, INSPECTS MINES, and TRANSACTS all the usual BUSINESS of a STOCK and SHAREDEALER. Parties may rely upon him for sound advice and punctuality in all his engagements.
Bankers: Robarts, Lubbock, and Co., Lombard-street.
11, Royal Exchange, London, E.C.

MR. LELEAN'S STOCK, SHARE, AND FINANCE REGISTER for May, published on the 2d instant, should be consulted by all who wish to make safe and profitable investments, giving 10 per cent. and upwards; to review the state of the markets for the preceding month; and to see the appreciation in the shares and capital of British mining companies. Single copies, 6d. each; annual subscription, 5s. Published monthly, and sold by Messrs. Pottle and Son, 14 and 15, Royal Exchange, London, E.C.

MR. LELEAN recommends the immediate purchase of Great Laxey, Central Snailbeach, Rosewarne Consols, Trelyon, Wheal Margery, East Laxey, Great North Laxey, West and Wheal Chiverton, and Great South Chiverton.
Mr. Lelean refers correspondents to his communication in this day's Journal, p. 329.
11, Royal Exchange, London, E.C., May 25, 1866.

GEORGE RICE, SHAREDEALER, 5, COWPER'S COURT, BIRCHIN LANE, LONDON (23 years' experience), Member of the Mining Exchange, DEALS in MINING SHARES at close market prices of the day, either as BUYER or SELLER, for cash or account.
SPECIAL BUSINESS in the gold mines, at close prices.
Money advanced on mining shares.
May 25, 1866. Bankers: Bank of London.

JOHN RISLEY, 32, LOMBARD STREET, and MINING EXCHANGE, LONDON, E.C., has SPECIAL BUSINESS in East Grenville, Wheal Buller, and West Caradon shares.

MR. G. D. SANDY, STOCK AND SHAREDEALER, No. 48, THREADNEEDLE STREET, LONDON, E.C., TRANSACTS BUSINESS in EVERY DESCRIPTION of STOCK EXCHANGE SECURITIES, MINING and FINANCIAL ENTERPRISES, at close market prices.
Correct Daily Price List may be had on application.
Money advanced to any amount on legitimate stocks and shares.
References exchanged.
Mr. Sandy's Circular for the present month will be ready on the 12th inst.

MESSRS. McNEILL AND LONG, STOCK, SHARE, AND MINING DEALERS,
7, POPE'S HEAD ALLEY, LOMBARD STREET, E.C.
Bankers: Alliance Bank.

MESSRS. WARD AND JACKMAN, STOCK AND SHAREDEALERS,
No. 1, CUSHION COURT, OLD BROAD STREET, CITY, E.C.
Bankers: London and Westminster, Lothbury.

MESSRS. WILSON, WARD, AND CO., STOCK AND SHAREDEALERS,
16, UNION COURT, OLD BROAD STREET, LONDON, E.C.
Messrs. Wilson, Ward, and Co., are DEALERS in the FOLLOWING SHARES, at market prices:—Frontino and Bolivia Gold, Great Laxey, Caldbeck Fells, Penhale and Lomax, New Wheal Towan, and North Treskerby. Can recommend two good mines for investment. Their fortnightly Circular may be had on application.

MATTHEW GREENE, STOCK AND SHAREDEALER, ST. MICHAEL'S HOUSE, CORNHILL, LONDON,
Is always prepared to deal at close prices in mining, bank, and railway shares, &c.
M. Greene begs to observe that it is gratifying (notwithstanding the undue asperity cast upon mining) to find, in the great commercial crisis through which we are now passing, that mining shares have suffered less depreciation than almost any other class of securities. The continued low price of metals has certainly operated unfavourably; however, now is the time to buy into well constituted and legitimate mining undertakings. M. Greene can recommend three mines for a good rise.
Money advanced on mining shares.
Bankers: Imperial Bank.
May 25, 1866. Office hours, Ten till Four.

MR. T. ROSEWARNE, 81, OLD BROAD STREET, LONDON, E.C., has BUSINESS to TRANSACT in all the LEADING MINES in DEVON and CORNWALL, and is also enabled to deal at close prices in Bank and Railway Shares.
Never was there a more favourable opportunity for parties to invest than at the present, particularly in lead and copper mines, as there are many safe for a great rise which should be bought at once.
WANTED TO BUY, any part of the following, at a shade above the quoted prices, for cash or account:—1000 Prince of Wales, 50 Caradon Consols, 100 New Wheal Towan, 500 Caldbeck Fells, 100 North Treskerby, 200 Penhale and Lomax, 100 Gunnislake, 50 Wheal Norris, 2 Seton, 20 Clifford, 15 Great Vor, 30 Tincroft, 100 New Clifford, 40 Nangles, 100 Marke Valley, 50 Craddock Moor, 20 West Caradon, 100 Camborne Vean, 100 Central Snailbeach, 100 South Darren, 60 Chiverton Moor, 10 West Chiverton.
An OFFER WANTED for Stray Park, Drake Walls, North Roskear, West Maria, East Carn Brea, Tolvadden, Crelake, Pendeen, Brixam Hematite Iron, Great South Tolgus, Great Wheal Busy, Hallenbeagle, Great East Lovell, West Vor, Wheal Edward.
Money advanced on marketable mining shares. Office hours, Ten till Four.

MR. WALTER TREGELLAS, 122, BISHOPSGATE STREET WITHIN, continues to deal, at close market prices, in all good sound DIVIDEND and PROGRESSIVE MINES, either for cash or the account.
W. Tregellas strongly recommends the Taquaril Gold Mining Company. Prospectuses, and full particulars, can be had on application.

MR. J. P. ENDEAN, SHAREDEALER, &c., of 25 years' experience, DEALS, and NEGOCIATES the SALE and PURCHASE of SHARES in Mines, Banks, Hotels, Water-works, Bridges, Canals, and every other marketable security, at nett prices, for cash or the fortnightly settling.
5, Finsbury Chambers, London-wall, E.C.

THE BRITISH AND FOREIGN MINING AGENCY, AND GENERAL INVESTMENT OFFICES, No. 5, FINSBURY CHAMBERS, LONDON WALL, LONDON, E.C.

BARRETT AND CO., No. 9, SPRING GARDENS, CHARING CROSS, and No. 75, OLD BROAD STREET, CITY, are PREPARED to GIVE EVERY INFORMATION on BRITISH and FOREIGN MINES, and have a large number of SHARES FOR SALE, which will pay from Fifteen to Thirty per cent. Their "Investment Review" can be had on application, and contains some of the safest and best securities in Mines, Railways, Eastern and Indian Stock, &c.

MR. GEORGE BUDGE, No. 4, ROYAL EXCHANGE BUILDINGS, LONDON, E.C. (Established 18 years), has FOR SALE:—80 Pedn-an-drea, 10s.; 1 Minera, £260; 2 West Sharp Tor, £35; 80 Gawton, £3; 70 Prince of Wales, 7s.; 100 Old Gunnislake, 31s. 6d.; 69 New Martha, 7s.; 10 East Caradon, £6¼; 100 Ilfogan, 7s. 6d.; 60 Camborne Vean, 20s.; 20 Rosewarne Consols, 21s. 6d.; 50 Lady Bertha, 9s.; 70 South Callington; 130 East Bertha, 4s. 6d.; 50 Great North Laxey, £2¼; 70 Drake Walls, 7s. 9d.

STOCK EXCHANGE SECURITIES.

Railways.	Banks.	English Funds.
Financial.	Foreign Funds.	Discount.
Steamship.	Loan.	Docks.
Ironworks.	Gas.	Water Works
Insurance.	Telegraph.	Hotel.
Marine Insurance.	Land.	Irrigation.
Foreign Mines.	Cornish Mines.	Devon Mines.

And other public companies.

MR. PETER WATSON, STOCK AND SHAREDEALER, begs to state that every information respecting any of the above companies may be had on personal application, or by letter, as to PURCHASES and SALES, with advice as to the most desirable investments.
From the close proximity of his offices to the Stock Exchange, and also the Mining Exchange, he is enabled to act with promptitude on all orders entrusted to him in the PURCHASE or SALE of every description of stocks or shares, at nett prices for cash or fortnightly settlements.
TELEGRAPHIC MESSAGES of customers to BUY or SELL in any of the above companies punctually attended to, at nett prices for cash or half-monthly settlements, at the closest posible market prices of the day.
Twenty-one years' experience.
(Two in Cornwall and Nineteen in London.)
Bankers: The Union Bank of London, and the Alliance Bank.
The present is an unusually favourable period for the investment of capital.
A SELECTED LIST of Railways, Banks, Financial, Foreign Funds, Steamships, Foreign and Cornish and Devon Mines, &c., sent on application, with special recommendations as to investments, &c., on the distinct understanding that any business resulting through his information or advice may be done through him.

PROFITABLE INVESTMENTS.—The ruinous losses that have been recently incurred by shareholders, deluded by specious promises of unusually large dividends into making injudicious purchases, prove the folly of indiscriminate speculation, and the value of sound practical experience.
Mr. Edward Cooke, having been connected with the Stock and Share Markets for upwards of 20 years, is well competent to advise capitalists upon the purchase or sale of British or Foreign Stocks, Railway, Bank, Insurance, Financial, or Mining Companies Shares, and all Miscellaneous Securities. Business effected at the closest market quotations.
Satisfactory references given in any town in the United Kingdom.
Bankers: Alliance Bank, Lothbury.
Offices, 2, Crown Chambers, Threadneedle-street, and Mining Exchange, E.C.

MR. J. W. HUTCHINSON, 78, OLD BROAD-STREET, and MINING EXCHANGE, LONDON, E.C., begs to inform his clients and the public that he can BUY or SELL, at close prices, Chontales, Frontino and Bolivia, Great North Laxey, Chiverton Moor, North Treskerby, Prince of Wales, Clifford, North Roskear, and many others now at very low prices, which should at once be bought, a list of which Mr. Hutchinson will forward upon application.
Bankers: City Bank.

Established Thirteen Years.

HENRY GOULD SHARP, STOCK AND SHAREDEALER, No. 32, POULTRY, LONDON, E.C., is a BUYER of the FOLLOWING SHARES, or any part thereof:—

10 Trelawny.	50 Nangiles.	250 North Jane.
20 Clifford.	4 West Seton.	30 St. Ives Consols.
50 Tincroft.	30 East Caradon.	50 Great Laxey.
25 Great Vor.	5 West Chiverton.	1 Wheal Seton.
15 East Basset.	25 North Roskear.	500 East Chiverton.
20 West Caradon.	60 Chiverton.	5 Wheal Buller.
200 North Treskerby.	3 Wheal Basset.	100 Great Caradon.
30 Stray Park.	50 Chiverton Moor.	20 St. John del Rey.
150 Chontales.	200 Frontino and Bolivia.	400 Prince of Wales.

N.B.—Sellers will please state number and lowest prices for cash.

MR. JAMES HUME, 74, OLD BROAD STREET, LONDON,
(Member of the Mining Exchange).
Bankers: The London Joint-Stock Bank.

MR. WILLIAM SEWARD, STOCK AND SHAREDEALER, 19, THROGMORTON STREET, LONDON, E.C.

NOTICE OF REMOVAL.

MR. J. B. REYNOLDS has REMOVED to Nos. 70 and 71, BISHOPSGATE STREET WITHIN, LONDON, E.C.

MR. WILLIAM MARLBOROUGH, 1, GREAT ST. HELEN'S, BISHOPSGATE STREET, LONDON, E.C. (Established 12 years), has FOR SALE the FOLLOWING SHARES, at nett prices:—

125 Drake Walls, 6s.	50 Old Gunnislake, £1⅛.	1 Wheal Seton, £199.
5 Great Vor, £16¾.	40 East Rosewarne, 28s 6d	25 Rosewarne Utd., 14s 6d
60 Rosewarne Con., 14s 6d	80 Prince of Wales, 8s. 3d.	15 Chiverton Moor, £5⅞.
100 Chontales, £1 prem.	75 Frontino, 16s. 3d.	50 Great No. Laxey, 38s 3d
20 Chiverton, £6⅜.	5 East Basset, £14½.	40 So. Condurrow, 25s. 6d.
80 Caldbeck Fells, 21s. 3d.	100 Mineral Rights, 18s 9d.	5 Mary Ann, £3 6s. 3d.
25 South Basset, 17s.	60 Halienbeagle, 7s.	100 East Bottle Hill, 2s 9d.
100 Bottle Hill, 1s. 6d.	15 East Caradon, £6¼.	15 Marke Valley, £3 13 9
35 East Grenville, 36s.	40 Wheal Grenville, 25s.	20 East Carn Brea, 32s 6d
20 Camborne Vean, 21s.	20 Frank Mills, £4 16s 3d	25 No. Treskerby, £2 8s.
30 Wheal Uny, 8s. 6d.	50 Lady Bertha, 4s. 3d.	50 Crebor, 9s. 3d.
10 East Lovell, £7 8s. 9d.	1 West Seton, £128.	10 Clifford, £8⅞.
5 Wheal Rose, £14.	70 East Vor, 4s. 6d.	20 North Crofty, 5s. 6d.
100 Redmoor, 1s. 3d.	20 Great Fortune, 36s.	15 Stray Park, 35s.
50 Great Busy, 7s. 6d.	2 Providence, £23½.	10 Wheal Trelawny, £13⅞
50 Central Snailbeach, 29s	25 New Wh. Lovell, 6s 3d	8 West Caradon, £6⅜.
5 Wheal Buller, £13½.	1 West Chiverton, £69¼.	60 Hingston, £4⅛.
50 Snaefell, 22s. 9d.	50 North Chiverton, 30s.	5 North Roskear, £3¼.

BARTLETT AND CHAPMAN, having extensive dealings, either as BUYERS or SELLERS, in ALL KINDS of SECURITIES, are always in a position to transact business at the market prices of the day, free of commission.
Bankers: London and Westminster.

WANTED TO PURCHASE:—100 Great South Chiverton, 10 Nangiles, 100 Chiverton Moor, and 50 North Treskerby. Lowest price for cash will meet with prompt attention.—Bartlett and Chapman, Sharedealers, No. 2, Bucklersbury, London, E.C.

SHARES FOR SALE:—10 East Lovell, 2 Providence, 50 South Condurrow, 100 Pestarena Gold, 40 Rosewarne Consols, and 50 North Jane.—Bartlett and Chapman, Sharedealers, No. 2, Bucklersbury, London, E.C.

MR. D. STICKLAND, M.E., having had upwards of 40 years' mining experience in Cornwall, several years of which he has had the entire management of mines therein, enables him to GIVE GOOD ADVICE thereon.
MINES INSPECTED and faithfully REPORTED ON. DEALER IN MINING, RAILWAY, and OTHER SHARES.
Temporary offices, 78, Shrubland Grove, Dalston.

INVESTMENT, LOAN, AND BANK AGENCY.—Established 1839.
Investments effected in Stocks, Shares, and other Securities, and 75 per cent. of the purchase-money advanced, if required, subject to quarterly or half-yearly repayments.
Deposits received in sums of £5 and upwards, and interest allowed thereon at the following rates:—

Repayable at fourteen days' notice	7½ per cent. per annum.
Ditto at thirty days' notice	8 " "
Deposits for six months certain	9 " "
Ditto for twelve months, or longer	10 " "

Loans negotiated on Public Securities having a market value, and every description of Bank and Money Agency business undertaken.
CHARLES PETERS, Secretary.
No. 12, Clement's-lane, Lombard-street, London, E.C.

CHONTALES GOLD AND SILVER MINE.—ON SALE, SHARES in this company, either for immediate delivery, or for settlement, two or three months on, to suit the convenience of the buyer.
For terms, apply to—
CHARLES PETERS, Secretary,
Investment, Loan, and Bank Agency,
No. 12, Clement's-lane, Lombard-street, London, E.C.

GREAT NORTH LAXEY MINE.—ON SALE, SHARES in this company, either for immediate delivery, or for time on, to suit the convenience of the buyer.—For terms, apply to—
CHARLES PETERS, Secretary,
Investment, Loan, and Bank Agency,
No. 12, Clement's-lane, Lombard-street, London, E.C.

MR. T. P. THOMAS, MINING AGENT AND AUCTIONEER,
3, GREAT ST. HELEN'S, BISHOPSGATE STREET, LONDON, E.C.

MR. T. E. W. THOMAS, MINING AGENT AND GENERAL MINING SHAREDEALER, 18, UNION CHAMBERS, UNION COURT, OLD BROAD STREET, LONDON, E.C
Mr. Thomas has SPECIAL BUSINESS in North Dolcoath, North Minera, Wheal Hartley, Mary Ann, Minera (Wrexham), and Bedol-Aur (Holywell).

MESSRS. LANE AND GIBBS, 2, ROYAL EXCHANGE, LONDON, E.C., AND MINING EXCHANGE, STOCK AND SHAREDEALERS, AND FINANCIAL AGENTS, transact business in all kinds of securities at closest nett prices for cash or account.
SPECIAL BUSINESS in Chontales, Mineral Rights Association, Zacatecas, Frontino, and Caldbeck Fells, either as BUYERS or SELLERS, for cash or the fortnightly settlement.
Parties of respectability can have transfers registered into their names previous to payment. Daily price list on application.
Bankers: London and County Bank.

MESSRS. THOMPSON AND CO., SHAREDEALERS, 7, BISHOPSGATE STREET, LONDON, recommend an immediate purchase in Clowance Wood Mining shares, as the best speculation in Cornwall. Special and latest reports, and information, forwarded on application.
Pedn-an-drea and Sparnon shares are also recommended.
Stocks and shares of every kind bought and sold.

MR. JOHN BATTERS, STOCK AND MINING SHAREBROKER, 13, THROGMORTON STREET, LONDON, E.C.
The Zacatecas Silver Mining Company (Limited).—Intending investors, who wish to have an interest in this valuable property, should apply immediately to Mr. Batters, who will not only secure them a full allotment, but furnish every information free on application. The numerous disappointments that must attend the applicants for shares in the Mineral Rights Association will show the necessity for an immediate application for the above, as the shares to be allotted in full are rapidly being filled up.

SOUTH CARADON MINE.—WANTED TO PURCHASE, ONE SHARE, for cash.—Apply by letter, with lowest price, to "E. W.," 30, South-street, Manchester-square, London, W.

MR. THOS. THOMPSON, MINING OFFICES, 12, OLD JEWRY CHAMBERS, LONDON, E.C.
OFFICES OF
THE GREAT LAXEY MINING COMPANY (LIMITED).
THE SNAEFELL MINING COMPANY (LIMITED).
THE EAST SNAEFLL MINING COMPANY (LIMITED).
THE EAST LAXEY MINING COMPANY (LIMITED).
THE REINNIE LAXEY MINING COMPANY (LIMITED).
THE CENTRAL SNAILBEACH MINING COMPANY (LIMITED).

JOSEPH TAYLOR AND CO., FINANCIAL, MINING, AND GENERAL AGENTS, 17, CROSS STREET, MANCHESTER.
DEALERS in MINING and OTHER SHARES.

MESSRS. C. THOMAS AND CO., CIVIL AND MINING ENGINEERING OFFICES,
POOLFOLD CHAMBERS, CHAPEL WALKS, MANCHESTER,
AND REDRUTH, CORNWALL.

BEARDWOOD, JONES, AND CO., 17, CANNING CHAMBERS (Opposite the Custom House), LIVERPOOL,
FORWARDING, COMMISSION, AND SHIPPING AGENTS.
Being intimately acquainted with the shipping of Iron, Hardware, Crates, &c., to all ports, we can offer superior advantages to Merchants and Manufacturers, both in low freights and moderate shipping charges. Marine Insurance effected.

MESSRS. WEBB, WADGE, AND CO., MINING ENGINEERS, AGENTS, AND SHAREDEALERS, PLYMOUTH.
WEBB, WADGE, AND CO. (late Edwin H. Wadge) beg to inform their friends and clients that they have made arrangements with Mr. Edwin H. Wadge (for two years the chief representative and manager of the extensive business of Harvey and Co., Clarence Chambers, Manchester), and that his business will henceforth be transacted under the name and title of WEBB, WADGE, AND CO., at No. 9, CRESCENT PLACE, PLYMOUTH.
WEBB, WADGE, AND CO., occupying as they do a central position in the heart of the mining district, will be enabled to acquire authentic information of all mining properties, and to advise their clients with the utmost correctness and punctuality. They will be also able to faithfully report the progress and exact position of the various mines in which their clients have embarked.
Address, Messrs. Webb, Wadge, and Co., South of England Mining and Engineering Offices, 9, Crescent-place, Plymouth.

VALUABLE MINE SHARES FOR SALE.—250 shares in OKEL TOR, and 50 shares in GUNNISLAKE (CLITTER'S).—Apply, stating highest cash price, to "O. G.," Mining Journal office, 26, Fleet-street, London.

MR. GEORGE DARLINGTON, CONSULTING MINING ENGINEER (Graduate of the Royal School of Mines), GROVE PARK, WREXHAM.—Mr. Darlington is OPEN to ACCEPT ENGAGEMENTS to REPORT UPON, MODEL, or ARRANGE MINES or MINING WORKS, and from his practical and varied experience in all kinds and classes of mines, both abroad and at home, especially on the Continent, in America, and in Australia, he can confidently offer his services to those who may require faithful reports or examinations of mining properties at home or abroad. Mr. Darlington speaks French and German fluently, and is acquainted with the mining laws of those countries.

MANCHESTER, AND WEST END OF LONDON.

MR. W. HANNAM, MINING, SLATE QUARRYING, INSURANCE, AND GENERAL SHAREBROKER,
ROYAL INSURANCE BUILDINGS, KING STREET, MANCHESTER; and
31, REGENT STREET, LONDON, S.W.
INSTANTANEOUS COMMUNICATION with the STOCK and MINING EXCHANGES, avoiding the delay and annoyance of visiting the City to ascertain prices.
A Monthly Investment Circular on application.

CAPT. J. RABEY OFFERS FOR SALE FIFTY SHARES, at the nett price of £3 per share, in the CAI-R-PANT MINE, joinining the great Minera Mine, and one of the bes prospects in the district, being all whole ground, and the mine paying for itself now at the shallow depth of 40 yards.—Address, Captain J. Rabey, Coedporth, near Wrexham, Denbighshire, North Wales.

NORTH OF ENGLAND MINING AND ENGINEERING OFFICES, MANCHESTER.

MESSRS. HARVEY AND CO., MINING ENGINEERS, AGENTS, AND SHAREDEALERS, CLARENCE CHAMBERS, MANCHESTER, are at all times in a position to deal in all the market Dividend and Progressive Mine shares, and also to advise on all mining matters, being practically acquainted with the business, and having a daily communication from the mining districts of Devon and Cornwall.
Messrs. Harvey and Co. publish a monthly "Mining Circular," containing a valuable summary of mining information. Subscription, 6s. per year.
Bankers: The Consolidated, Manchester; and the Alliance, Lothbury, London.

MESSRS. HARVEY AND CO., of CLARENCE CHAMBERS, MANCHESTER, are anxious to state that they have NO CONNECTION with HARVEY AND CO., of HAYLE, and recently of Clarence Chambers, London, who supply mine materials.

MINING OFFICES, MANCHESTER.

THOMAS MOLYNEUX AND CO., MINE AGENTS AND SHAREBROKERS. Reliable information can be obtained as to purchase and sale of shares.
Offices of the Ellen United Copper and Zinc Mining Company (Limited), and Hazel Grove Silver-Lead Mining Company (Limited). Thos. Molyneux, secretary, 28, Princess-street, Manchester.

BRITISH AND FOREIGN INVESTMENT.—Mr. Thomas Spargo, 224, and 225, Gresham House, Old Broad Street, London, E.C., TRANSACTS EVERY DESCRIPTION of BUSINESS in the PURCHASE and SALE of SHARES in BANKS, CANALS, MINES, RAILWAYS, BRIDGES, INSURANCES, and ALL OTHER DESCRIPTIONS of BRITISH and FOREIGN STOCK.
Mr. Spargo has 20 years' experience of mining, ten of which he was engaged in practical mining, and ten years he has transacted business in mining shares and stock, at 224 and 225, Gresham House, Old Broad-street, City, E.C.
Bankers: Bank of London.

Original Correspondence.

THE COPPER TRADE.

SIR,—From the great depression in the price of copper—from 145*l.* to 110*l.* or 115*l.*—and the simultaneous falling off in the production of this mineral, not only in Cornwall and Devon, but the exhausted state of the great producing mines in Cuba and Australia, with an increase in the consumption of copper of about 9000 tons annually, and judging that the quantity of this metal annually consumed in the various descriptions of manufacture—from 80,000 to 100,000 tons—copper at some not very distant day must command more attention than of late. If some of the great financial schemes of the day had embarked a portion of their capital in well-selected districts, to the discovery and development of our mineral wealth at home, many of these companies would not have come to grief, in all probability, as they have done of late. The evil is that nearly all the capital has been embarked in speculations which, in many instances, are overdone for a time, and during most of the manias the capital finds its way into one channel, whether it is in buildings upon a gigantic scale or embarking in reckless speculations in building cities in foreign lands, it is pretty much the same; then follows the result—a dulness, and ultimately a panic, and millions of capital is sacrificed.

A mineral called WHITE IRON is much sought after at present. As a composition it is said to be by far the best thing discovered for preserving iron-plated ships from the destruction of salt water acting on the iron; as well it is said to contain large quantities of silver; and, lastly, it contains cobalt. At the West Darlington Copper Mines, near Marazion, a few years ago, a vein of this White Iron was discovered, worth from 1200*l.* to 1500*l.* per ton for silver, it is reported, but the engine was insufficient to work the ground, being situate in a lake of water. Experiments, however, are being tried in an adjoining locality, in some of the recently-abandoned copper mines, for this mineral.—*May* 23. A. BENNETT.

THE COAL QUESTION.

SIR,—Although no one would attempt to prove that our coal fields will endure for ever, I think no one can seriously consider the subject without speedily discovering the futility, not to say absurdity, of the attempt to base useful estimates as to the future upon the production, consumption, and export of the present day. The book of Mr. Stanley Jevons, now attracting so much attention, does not attempt to prove the contrary; and I do not wonder that Mr. Jevons should feel annoyed at the frequent misquotations of his opinions. He discusses the whole question fairly, and dispassionately, and gives ample facts to enable anyone to form sound and philosophical conclusions, if they will but trouble themselves to read his work as it was evidently intended to be read. It is scarcely possible to conceive how, with such statements of facts before them, men can be found who believe that the officers of the Geological Survey can collect any information that is likely to prove of practical value; for, it is beyond question, that if all the geologists in the kingdom were engaged to ascertain the quantity of coal existing beneath the soil of our country, or even if those geologists could accomplish the impossible feat of taking out, examining, and returning to its normal position every ounce of that coal, the knowledge obtained would (for the object in view) be utterly valueless, because the quantity and duration of our coal is not at all dependent upon anything existing exclusively within the kingdom. Were the question to be solved, the probable time at which any given article of exclusive English manufacture (as English-made calico) will be exported to a given country, as Canada, a useful estimate could be arrived at, but in the case of coal it is quite another thing.

To interfere in any way with the production or export of coal would be useless, because a comparatively small rise in price would cause most countries to produce it at home, and they would thus be rendered altogether independent of us. Whether we export coal, or the articles manufactured by the use of coal, we are helpless to prevent the development of the coal fields of other countries, and it is not unfair to argue the probability that the maximum of our coal export has now been nearly reached, since we are each year aiding, by our exports of machinery and capital (and we cannot keep these at home), foreign countries to produce not only coal, but all their necessaries of life within their own countries. Every 1*l.* worth of machinery for mining purposes, and every 1*l.* of capital sent to a foreign country, whether it be France or South America, Spain or Colombia, gives the country to which it is sent the power to produce 1000*l.* worth at least of mineral, and adds to the supply of the markets of the world to that extent; and however patriotic we may be, the fact will remain the same that the current of population will flow where it is most required, or where it can obtain most comfort. H.

May 22.

THE NAILSEA COAL FIELD, SOMERSETSHIRE.

GOOD OPENINGS FOR WORKING AND INVESTMENT.

SIR,—In drawing attention to this coal field, it may be observed that some 53 years ago an Act of Parliament was passed for making a canal from the River Avon, at Morgan's Pill, near Bristol, across the coal fields and to the collieries at Nailsea. Before commencing the canal, the committee of proprietors of the Bristol and Taunton Canal engaged two eminent mineral surveyors to report their opinion as to whether there was sufficient unworked coal, the tonnage on which for carriage by the canal would pay interest to the company on the expense of executing the works necessary in making the canal.

Mr. WILLIAM SMITH (it is presumed the same as is generally entitled the "Father of English Geology"), in his report of July 1, 1811, contented himself with giving a general opinion on the matter, being perfectly satisfied that the company might with safety proceed with the execution of the canal to the collieries.

Mr. EDWARD MARTIN, colliery surveyor, Morriston near Swansea, in his report of July 31, 1811, went more into a statistical account of the position and thickness of the coals and the capabilities of the coal field, he gave four general sections, and a plan dividing the seams, or veins, into three groups or series,—the first, or upper group, containing two seams, of the aggregate thickness of 6¼ feet, he called "Grace's veins;" the second, or middle group, containing three seams, of an aggregate thickness of 7½ ft., he called "White's veins;" and the third, or lower group, containing five seams, of an aggregate thickness of 12 feet, he called "Teague's veins"—the different names being the names of the parties who then worked the coals. The uppermost of the Grace's veins, called the "Withy seam," 4½ feet thick, had been sunk to and worked on the northern side of the basin by pits 20, 40, and 50 fathoms deep; and the second seam of the middle group, called the "White's, or main seam," 3½ to 4¼ feet thick, had been sunk to and worked on the northern outcrop by pits a depth of 20 and 35 fms., and another pit was then being sunk expected to be 60 to 65 fms. deep. The first and second seams of the lower group had been sunk to and worked at a depth of 15 and 27 fathoms respectively on the southern side of the basin, in Mr. Teague's and the Marquis of Bath's property, in the manor of Backwell (the other three seams of this series below the two named had, no doubt, been well ascertained in some way near the outcrops). Mr. Martin after allowing for thin seams, estimated the produce at 20,000 tons per acre, and 20,000,000 tons in 1000 acres (but he had no doubt there were 2000 to 3000 acres available), which, at 120,000 tons per annum, would last 166 years. His opinion was that the coal field extended westward for many miles, and that the western outcrops might be in the Bristol Channel, and that large new collieries might be opened on Kenn Moor, Nailsea Moor, and near Clevedon church, where he considered the Backwell veins worked by Mr. Teague must range.

It is not the object in the present instance to enter into the—partly speculative—theory of the extension of the coals to the extreme westward (of which something may be said at a future time), but to confine the observations to the immediate locality where the coals have been worked for a great many years, up to the present time. The writer does not know how long the "Grace's veins" continued to be worked—they occupy only a small area in the centre of the basin. Neither has he been able to ascertain exactly at what period Teague's workings ceased—they were very shallow, and close upon the outcrop or junction of the coal measures with the New Red Sand Sandstone. Other pits, it appears, were subsequently sunk to the depth of Teague's pit—40 or 50 fms. from the surface, to the highest, or Smith's coal, in Martin's section, and 10 to 20 fms. further to the Dog seam, both of which seams were worked, more or less, up to about the year 1842. A pit near the Nailsea railway station was sunk some 60 fms. to a seam of coal called the "Smyth's seam," which has been sunk to about 50 fms. below the "White's seam," at a pit called the "Golden Valley," on the eastern outcrop of the "White's veins." The Nailsea station pit, from some cause or other, was stopped suddenly, somewhere about the year 1848. The White's seam has continued to be worked up to the present time in various places on the northern, eastern, and southern sides of the basin, by the Nailsea Coal Company. The workings at the last and deepest of their pits, at Youngwood, a little to the west of the Nailsea Railway station, in the White's seam, are, it is understood, fast drawing to a close, and no preparations are being made by the company for opening another colliery; consequently, with the exception of a small colliery now being sunk (1866) to the north of the Nailsea Glassworks, there will soon be no colliery of importance at work in the coal field. Although there is plenty of scope for a good and profitable opening immediately to the deep of the present Youngwood workings, where pits could be sunk at a moderate cost, to command an area and produce of the White's seam 3½ to 4½ ft. thick, which has been proved to be good by the workings on the south, east, and north, to last from 30 to 50 years, and pay 13 to 15 per cent., besides redeeming the whole capital to be invested, in the time. Another opening, it is considered, may be made with equal results in the Backwell, or lower series of seams, of which the three principal may be taken at 3 ft. each, or 9 ft. thick in all, and which extend under a large area of the Marquis of Bath's and a few other intermixed lands. In both of the districts, it is understood, there will be no difficulty in obtaining the powers to work. It only requires a few capitalists to go vigorously and harmoniously to work to achieve the promised results.

It may be mentioned that there is a blackband ironstone from a few inches to upwards of a foot thick, lying immediately above White's seam, which contains 33 per cent. of metallic iron, and may be made available in the deep workings. It has been left as a roof in the shallow land workings. It is needless to say that the canal was never made, but the Bristol and Exeter Railway runs completely along the southern outcrop of the lower series of coals, affording every facility for sending the coals away to the westward; and the Nailsea Glassworks consume large quantities of the small coal produced. GEOLOGIST.

COLLIERY EXPLOSIONS—HOW TO AVOID THEM.

SIR,—I had hoped "M. E." would have taken my advice in reference to my invention for extracting inflammable gas from coal mines—"try it"—before he again brought forward the very complete success (?) with which the old system of ventilating has been attended for so many years. Now, I presume all coal mines are under the supervision of Mining Inspectors; of course, they must all necessarily conform to the Coal Mines Act. Now, this at once shows there either must be lamentable neglect on the part of these Inspectors, or—which I think far more probable—a want, in addition to the general ventilation, of some efficient and useful means of removing accumulations which some colliery managers are honest enough to admit their mines contain to a very large extent.

As to the success "M. E." speaks of, it is indisputable that ordinary ventilation has just made the air pure enough for the miner to exist in and to spend his strength in procuring a large yield of coal conducive to the prosperity of colliery owners; but, as it is not for pecuniary success we are contending, but for what is of infinitely more value—the safety of precious life—I emphatically state (and there are few who will disagree with me) that the old system has been *anything* but a *success*. As I have before fully explained my method, and clearly shown that gas is an element very easily removed, and that the removal of so deadly an element is the one thing in which ordinary ventilation has failed, I shall not recapitulate, but must allow the fearful responsibility to rest upon the shoulders of those who are too prejudiced even to make the experiment. "M. E." should bear in mind I have not been groping in the dark all this time, but have information from innumerable practical miners, as well as several scientific gentlemen, some of whom have been as sceptical as "M. E.," but who, upon seeing the experiment, have been at once convinced of its applicability. To take a common-sense view of the matter, there is "M. E.," and many others, all ready, in case of an explosion, to write fluently upon the cause and effect, all seemingly of one mind in admitting there is a deficiency, and proclaiming that "something ought to be done." Then I, or anyone else, propose a plan by which the evil may be much reduced, if not quite obviated; and, instead of meeting with encouragement, they at once begin to prejudge it, without first testing and proving whether it is of any value, and most energetically plead the merits of the old system in the face of the explosions so constantly occurring. I do not wish to be intrusive, but I think it ought to have a fair trial, and then, and *not till* then, condemned, when I should abandon the affair altogether, apologising to "M. E." for any remark which may not seem pleasant.

May 22. J. G. WILLIAMS.

BESSEMER STEEL.

SIR,—No one can be more ready than myself to award to inventors the credit to which they are entitled, yet I can scarcely agree with the statements which have recently been put forth, complaining that Mr. Bessemer has acted unfairly toward Mr. Mushet, in not bringing his name more prominently forward in connection with the pneumatic process. It has been generally admitted that the success of the pneumatic process, and the great results produced in the manufacture of steel, are due to the genius and exertions of Mr. Bessemer; and now a counter statement is put forward that, but for the invention of Mr. Robert Mushet, for adding spiegeleisen to the charge, Mr. Bessemer's invention would have been entirely useless; it is also inferred, moreover, that the patentees of the Bessemer process intentionally withhold from Mr. Mushet the praise due, although I believe that such an idea has never entered their thoughts. Mr. Mushet's friends may rest quite satisfied that the grounds upon which their Bessemer claims are based are by far too unsubstantial to lead the rights of others to be questioned by those interested.

The system of forcing air through molten metal, to give it a steely texture, is not due to either Mr. Mushet or Mr. Bessemer; and the use of manganese (which is all that gives advantage in the use of spiegeleisen) was suggested and used by Robert Heath almost before Mr. Mushet knew that the iron trade existed. But this is not the sole reason that would lead me to urge that as little as possible should be said about the rights of the several claimants; it is very currently reported, and I am not aware that Mr. Mushet has denied it, that a pecuniary consideration has been paid as a compensation to him, upon the condition that he should raise no claim to the invention. When this arrangement was made no doubt was entertained on the part of Mr. Bessemer that the claims of Mr. Mushet were unfounded, but it was thought to be preferable to make a money sacrifice rather than have a really useful invention prejudiced in the eyes of the public, more especially as it was intended to form a company to develope the invention.—*May* 22. J. J. J.

ORE-SEPARATING MACHINE.

SIR,—Mr. John Curtis, under this heading, in last week's Journal, mentions Mr. Hunt's patent jigging-machine as the most perfect known for washing silver-lead ores. Although not acquainted with this particular machine, through a long absence from England, I believe there is one which has been considered as complete, in use in some of Messrs. John Taylor and Sons' mines, both in Cornwall and also at the Gonnesa washing-floors, by which the ores from the crushing-mills are conducted, without any manipulation whatever, through a series of compartments, formed by the thread of a screw, the last of which yields perfectly pure ore. I do not think it would be fair to give a description of the apparatus, as I am not sure if it is patented yet, and I was only permitted to inspect it as a friend. It is, I believe, the invention of a working man, in the employ of the Messrs. Taylors' firm, and is certainly the most simple and complete dressing-machine I have ever met with in any country. The expense of erection and working is remakably small, and the production really marvellous. Perhaps if this meets the eye of the inventor, he would not object to give, through the medium of the Journal, a sketch and description of the apparatus, as it is one that I could wish to see much more generally in use than it is at present.—*London, May* 22. E. S.

PROSPECTS OF THE COPPER TRADE AND COPPER MINES OF GWENNAP.

SIR,—The bombardment of the chief Chilian port is disastrous in the extreme, inasmuch as it entails an enormous loss to English capitalists by the great destruction of property caused by the fall of Valparaiso, and is to be feared that the next mail will bring the unwelcome news of the destruction of other seaport towns. On reference to Government returns it will be seen that more than one-half of the world's supply of copper comes from that country, the trade of which is now, and I fear will for a long time be, at a standstill. The effect of it will soon be felt in this country, and must tend to enhance the value of all copper-producing mines to an amazing extent. In the returns alluded to the total production of fine copper in the world is shown at something like 90,000 tons per annum, out of which 48,000 tons come from Chili, the whole supply from which country is now, in a great measure, stopped; and it is, therefore, only fair to conclude that a great improvement in the price of copper must take place during the ensuing year, followed by an important rise in the value of all copper mining stock. In anticipation of this, it is gratifying to notice that already the public are on the alert. During the last few days CLIFFORD AMALGAMATED has had a rise of about 10,000*l.*, which I consider is only the beginning of what it must ultimately lead to. HALLENBEAGLE, GREAT NORTH DOWNS, and WHEAL BUSY will be greatly benefited by the advanced price of their produce, and the shareholders will reap the reward they so richly deserve. At TRESAVEAN the shaft and other preparatory work will be accomplished just in time to enable them to avail themselves of this advantage. The value of the course of ore in the 19 cannot now be easily calculated, but it is satisfactory to know that for 20 fathoms long there is a course of ore gone over varying from 3 to 6 tons per fm., which will be opened up as soon as the shaft is communicated with the level, in another two months. During the last week a very important improvement has taken place in the rise in back of the 12, which is going up to meet this shaft, where there has been found some rich crystallised red oxide and grey carbonate of copper. The lode at this point is very large, and is embedded in a similar granite to the great parallel deposit of copper in TRETHELLAN, and the specimens of ore resemble in every way the top of that great and rich bunch. Of all the progressive copper mines in the county, but few present such features of speedy success; a mine paying its own cost, having scarcely any liabilities, and most excellent management, and, what is best of all, a continuous course of ore gone down in the bottom of the level, which will, by-and-bye, line the pockets of the shareholders with handsome dividends. Here, too, as in the case of CLIFFORD AMALGAMATED, the public are anxiously seeking after the shares at an advance, and those who are fortunate enough to succeed in getting a few at the present prices may congratulate themselves on their success. There are many mines throughout the county, perhaps, presenting good prospects, and which I shall, on some future occasion, have reference to; but that the time has arrived for the investor to make his selection is evident.

St. Day, Scorrier, Cornwall, May 23. CHARLES BAWDEN.

THE RECENT COMMERCIAL PANIC, AND MINING.

SIR,—THE PANIC, and its causes, supply a theme for grave consideration. The very word, expressing as it does, unreasoning fear, jars on the English ear, and frets that national self-esteem with which we are universally credited, and of which we have certainly some good cause to boast. All is not vanity on that point, our right to a gratified "sufficiency" is acknowledged, is, in fact, unassailable; and, therefore, the more distateful now are those pertinent questions the country is compelled to hear from all sides touching the *rationale* of the stampede that marked the retreat of the monied class from their propriety, and directed the "run" of what must be unflatteringly styled a well-dressed mob, upon certain marked or tabooed banking-houses in this our staid old City of London.

The failure of Overend, Gurney, and Co. was, it must be conceded, sufficient to create distrust and dismay, but not to that extent which, as we have seen, arrested the exercise of calm judgement, caused people of experience to forget the first principles of common sense—those which influence deliberate action to right the ship in the hour of peril, and sent a half-frantic horde of depositors to drain their bankers' coffers of the last sovereign, and thus the more effectively to complete that ruin, the very thought of which appalled them.

Preach prudence as people may, the wise doctrine of bear and forbear is not illustrated by £ s. d. And yet it might well be expected that the senseless and suicidal occurrence of a "panic" would not be promoted by that very section of society to whom wealth has ensured highly cultivated intelligence. It is reasonable to expect from people of education in these days some exercise of discernment which would discover to them that the existing well-established commercial prosperity of this country is a safeguard against such wide-spread disorganisation as in years gone by, happily never to return, involved so many thousands in ruin. No axiom of the political economist is more forcible in its truth than that which teaches us to rely on a provident regulation of our commercial system for ample protection from all the eccentricities and vagaries of "financiering," a new but suggestive term for the morbid speculation that, within the last two or three years, has been, as is now proved, so recklessly indulged in.

Like Cæsar's wife, the character of those to whom the public trusts the keeping of its wealth should be above suspicion. But on the other hand, monied property, like that in land, has its duties as well as its rights; and one of its main responsibilities is to refrain both in word and act from those indiscreet and unworthy implications to which, in some measure, may be traced the commencement of those doubts which recently lowered in the market the value of the stock of more than one of the new-fangled Finance Companies (Limited), and branded with suspicion undertakings that, in reality, merited better from their foes and friends.

Stock Exchange scandal is an edged and dangerous weapon, and one, we are told, which, during the last six months, has done much and irremediable mischief. The unaccountable fall of some shares, and the as unreasonable rise of others, as competitive stock, can now be referred to the deplorable absence of moral principle we here allude to on the part of a certain class of dealers; but it is consolatory to know that the majority in the "House" are of that sterling and honourable stamp, to which those evil influences must inevitably succumb. However, it may be observed that, perhaps, the very nature of finance associations, as now established, invites those parasitical attaints. Their rampant competition, owing to their numbers, and an unhealthy ardour for extensive speculation, apparent in almost every instance, attracts envious, cynical, and sinister observation, and hence the "evil eye" sets upon them, to their injury and decadence. Much, in truth, can be advanced in this respect against the system adopted by many of the joint-stock banks and finance societies, and a more conservative principle will have to be infused into their mode of carrying on business before the confidence in their stability, now so shaken, can be beneficially restored.

It would be invidious at this moment to go closer to the point, and all whose interest makes them watch with earnestness those signs of the times have only to hope for the best; neither will we say that the prospect is incapable of clearing to their advantage. Of one fact the public are at length convinced, and that is, the improvidence with which a vast amount of its money has been laid out in non-available securities—at least non-available when the sums invested in them were most required. The time has passed for any attempt at the slightest palliation of the error thus committed; and, while all are saddened at the spectacle of a great and ancient banking house in ruins, the fall of which has crashed the warning of monetary doom all over the civilised world, indignation, to some degree, cannot but be felt at the—we will not say "reckless trading," as the term is ordinarily interpreted, for at the present stage the assertion cannot be justified; but it would be only false delicacy to hesitate at imputing a strange want of prudence to the directing powers of an establishment to which unlimited credit was accorded on the faith of its ancient prestige for wealth, experienced caution, and fair dealing.

Some of our contemporaries have spoken more severely on this feature of the case than we are inclined to do in presence of a catastrophe so recent; but it is to be apprehended that in the official investigation which must ensue upon it "hidden things" may be brought to light with regard to management upon which it will be the duty of every journalist to animadvert with frankness and decision. Most readily do we recognise that the leading paper, the *Times*, gave early warning of the ruinous consequences which were sure to result if the speculative transactions entered into by the finance companies and joint-stock banks were not checked. Unfortunately, prescience so astute was disregarded, and those who refused to hear the boding counsel have now to mourn their obtuseness; but, bitterly as they now repent their recklessness, we much fear that the crop of follies is by no means exhausted, and that, unless some further legislation takes place for the improvement of the joint-stock system, people of the go-a-head, enterprising class cannot be protected from themselves. Various are the ingenious theories advanced for the furtherance of this object, and how to cure speculative delusions has become quite a philosophical problem—one, in fine, so seriously canvassed, even in the highways and byeways, as well as in the innermost chambers, that it is to be hoped its practical solution will, in good time, be arrived at. However, leaving the *savants* to do their work, it would appear, from the present aspect of affairs, that until bankers, and all of that ilk, are subjected to more control in dealing with deposits upon their own proper account, the protection afforded to owners of such capital is equivocal, and far too insecure; while if any restrictions be imposed of this nature, it is clear that there should also be some days' grace allowed between a given notice to the banker for the closing of the deposit account and the actual withdrawal of the funds. In this way would a better and more convenient order of relations be established between the capitalist and those to whom he would confide his property; but, whatever be the panacea requisite for the ills complained of in this quarter, it should be promptly administered.

No one dare expect that we are done with failures incidental to the collapse of the eminent banking houses and firms which figure in the black list of commercial casualties. The shock has been felt through all the ramifications of enterprise, and its effect has not yet had time to develope itself. Business credit is warped, the resources of many second-rate houses and of "little people" in commerce and trade are contracted, if not totally arrested, and the consequences are obvious. It is true the monetary pressure is lightened at the fountain head, but it is scarcely probable such relief will dispense its salutary influence through the more distant channels of trade in sufficient time to prevent the cessation of the artizans' labour and the closing of the little traders' doors. Those are the people who,

although indirectly, feel such a time as the present the most severely; and the country bankers, who are reported "to be still in town," cannot be too urgently demanded to use all dispatch in coming to the conclusion of their financial arrangements, remembering "the milk is handiest when the kine are in the byre."

Without stopping to trace the history of those establishments which are now among the fallen, a very potent moral can be deduced from that ruin in which they are prostrate. The "Financial Circle" is, as to its dominance, a thing of the past; and if anything can demonstate to the public the folly of supporting monetary enterprise which aims at universality of action, it is the fate of that system. Too plainly is it now proved to speculators that to play at the *rouge et noir* and *roulette* of foreign commerce and the "chicken hazard" of our own is a dangerous game. By it has their aggregate capital been lessened not by thousands but by millions; and the bitterness of that truth cannot be qualified by the consciousness that, for the last few years, they have all but totally neglected those native resources of the country which would have insured them a certain gain instead of a vast and endless loss.

Among the neglected we may mention Mining, and do so with considerable regret for the sake of those who, pursuing a chimera, rejected the sterling advantages so presented for their acceptance. This industry, however, has and will, from its inexhaustible and intrinsic worth, continue to endure, and can at all times be made available for rational and legitimate enterprise. Why, then, should not its value be tested by even a section of that class who have had the will, but, fortunately for their own pockets, lost the opportunity to join in the pursuit of the golden butterfly of "Finance?" It is never too late to mend, and better late than never. Perhaps those who would have been so willingly infatuated are not aware how large an item the mining industry affords to the immense capital represented by British labour. They must not forget that it occupies a prominent place in the industrial world, and has wrought to a great extent the augmentation of that national revenue whereon was founded the estimate of the Chancellor of the Exchequer, alluded to in his speech at Liverpool, when he told his hearers that the income of the working classes was three-sevenths (43 per cent.) of the whole income of the United Kingdom. There exists yet a field, a rich one, for a still greater increase of this extraordinary proof of what is being annually realised by labour; and when we point to the mining interest of this country as a sphere within "the glittering zone" capable of being further explored advantageously to the retrieving of losses and the making of new fortunes, we suggest to capital the profitable duty of aiding labour in such achievement. MENTOR.

BANKING, FINANCE, AND MINING—No. II.

SIR,—The banking institutions of the country engross at present almost exclusive public attention, and it is a subject that demands serious and deserved enquiry on the part of all. The banks are constituted upon distinct principles of partnership—old and newly established—*private, unlimited*, and limited companies. The first and second involve responsibilities to the extent of the last shilling and last acre of each partner, until the whole commitments are liquidated in full. The last Act was passed about ten years ago, after stormy discussion, the controversy running warm, whilst opposition became keen and persevering. The Legislature at last, however, passed the Limited Liability Act, giving effect to principles in the creation and conduct of companies of the most comprehensive and powerful character. It is true that private banks are enveloped, in many instances, with mystery and mistrust as to the means of the firm and the capital embarked in the business. There is no way of comprehending their substance or ascertaining the wealth they possess to meet their obligations. This is a great defect, and, in our opinion, the Legislature should supply a remedy, for few men of business, practically conversant with banking and finance, doubt the feasibility of many private banks trading wholly with the money belonging to their customers, and without a single pound of their own embarked in the concerns. Fathers and grandfathers might have been cautious, rich, and powerful capitalists, but it is within the range of possibility that their descendants may have dissipated their wealth, and continue their trading on the reputation of their ancestors. There can be no question raised as to the soundness of most of our recognised metropolitan and provincial private banks—it is the exception we dread, and not the majority we fear. As regards unlimited banks, such, for instance, as the London and Westminster, Union of London, London Joint Stock, with the London and County National Provincial of England, and others of like reputation, and standing no possible loss, without general insolvency, can arise to depositors or creditors. The share registry is extended, and embrace men of substance and means. This at first sight, however, appears to be a heavy and unreasonable penalty to be imposed on shareholders in unlimited banks, but it in no respect differs from the liability of partners to all their dealings in respect to private banks, whilst the former possess this advantage, that their operations as bankers are restricted to the capital subscribed, as betwixt the members themselves, the increased responsibility being confined to the creditors alone. The creation of the Limited Act gave up the idea of protecting mankind against the results of their own folly and want of foresight. The Legislature gave to the creators of companies powers to frame their own Articles of Association, requiring of them little more than that they should register their constitution, and keep a correct list of their shareholders—what was to be the number of their shares, what their amount, what their object, what their form of government, was left entirely free, so long as the provisions of the Act were observed.

In this state of freedom many private banks merged into limited companies, whilst other cautious and prudent bankers wound-up their business, or amalgamated with other institutions, to gather strength, or otherwise to escape scatheless the commercial panic that inevitably would follow the inflation of credit, and the keen competition of limited finance companies, whose commitments were unrestricted, whilst their responsibilities were circumscribed. As, for example, Messrs. Jones, Loyd, and Co. transferred their business to the London and Westminster, Messrs. Currie and Co. joined Messrs. Glyn and Co., and Messrs. Spooner and Co. Messrs. Barclay and Co., Messrs. Masterman the Agra, Messrs. Hankey and others the Consolidated. Messrs. Overend, Gurney, and Co., with Barned's Bank, changed their constitution from absolute to limited responsibility: 500,000*l.* and 100,000*l.* were the respective premiums paid for the goodwill of businesses that did not survive a year, consequent on enormous advances upon unconvertible securities, and lamentable are the results that competition and non-liability have inflicted throughout the length and breadth of the land, through the mismanagement of the respective executives, and the wild and reckless commitments to which the firms were subjected. As an instance of the losses encountered by the shareholders, and the inconvenience to which the creditors of the company are compelled legally to submit, we extract the following from the proceedings at the meeting of shareholders in Overend, Gurney, and Co. (Limited), held at the London Tavern, on Tuesday last:—Mr. Kingscote said he had told Mr. Sheppard that he did not know what was hanging over them, but thought it was quite possible to revive the business. The subscribed capital of the company was 5,000,000*l.*, of which 1,500,000*l.* has been paid up, leaving 3,500,000*l.* to call up. The liabilities were 20,000,000*l.*, of which 12,000,000*l.* were on call and notice, and 8,000,000*l.* on deposit of securities. They had taken over 2,800,000*l.* from the original firm, secured in various ways, 500,000*l.* of which could be realised in six months, and 500,000*l.* more in 12 months, consisting of 300,000*l.* liabilities of public companies, and 200,000*l.* on ships, &c., making 1,000,000*l.* realisable in one year. He proposed that a call of 5*l.* a share should be made, which would give them 500,000*l.*, and they would realise 500,000*l.* out of the other assets, making another 1,000,000*l.* He proposed that they should immediately raise 2,000,000*l.* on loan for one or two years, and, with a view to carry on the business, to make a further call of 2*l.* 10*s.* per share. This would give them 2,500,000*l.* The shareholders had given 500,000*l.* for the goodwill, they had 2,800,000*l.* dead weight to meet and realise, and they had no capital to do it with. They were 1,300,000*l.* worse than nothing, so that with the first difficulty they must fail. It was silly to go on in that way, and perfectly natural that such a result should follow. They had 2,800,000*l.* locked up to begin with. By getting a few leading bankers to manage their affairs, and take matters in hand, with something like what he proposed, they might go on again and preserve their property, but if they did not do that, perhaps 10*l.* or 15*l.* a share would have to be paid to wind-up the concern, while, on the other hand, it would require only a call of 7*l.* 10*s.* to revive the business and to go on.

Banking and finance companies, conducted upon the unlimited liability principle, relieve all from painful anxiety. The shareholders fairly earn their profits upon the business transacted, and fairly risk the responsibilities to their commitments. There is a limit to the capital, so far as the numbers are concerned, as a corporate body, but no limit to their responsibilities in regard to dealings and engagements with their customers and the creditors of their banks,—in fact, so far as their business extends in other respects the partnership is exactly similar to all private firms associated with the trade and commerce of the country. In this position of affairs creditors are fully secured, and the companies themselves find their credit unquestioned, and their business extended and enhanced in gains and character. This, in our opinion, is the very acme of legislative control in corporate banking and finance business, and no institution of a contracted responsibility, or appertaining to a private partnership, can compare with unlimited joint-stock banks rightly conducted, with a share registry unquestioned as to the number and opulence of its members. There is one question, however, worthy of notice in respect to unlimited joint-stocks,—shareholders in the London and Westminster, Union of London, or the London Joint-Stock Bank, ought in prudence and honest precaution to deposit their spare money, and also keep their current accounts, with a bank in which they stand free of the registry of shares; for, in case of collapse, all the creditors would be paid in full before a shareholder, who is necessarily a contributor, receives a single pound in payment. Simply, however, as this risk can be avoided, it is a fact almost unstudied by bank shareholders, and by far the larger majority of proprietors place their surplus money in the bank they hold shares in, and thus risk all their eggs in the same basket.

It is undoubtedly to be regretted that the general discredit of companies, consequent on the many failures of half-established, and in instances misconducted, concerns has involved other institutions, legitimate in purpose, perfectly solvent, and well administered, and which would have proceeded well but for the mistrust engendered, added to the pressure of the monetary crisis, open to none of the blame which justly attaches to ill-considered speculations. But this is a disaster beyond control; for it is a truism as old as the hills, that disorder cannot prevail without the innocent suffering, or reformation be effected without crushing the helpless, though good and free from censure.

There can be no doubt as regards limited liability companies having greatly stimulated the enterprise and added to the wealth of the nation, for the operations of these institutions have chiefly been restricted to foster home industry, employing the working population, and in raising and carrying out varied and gigantic undertakings, distributing immense sums of money which, *contra* to foreign schemes, have preserved the capital in our own country, simply changing its direction and distribution, its employment has added greatly to the property of the people.

The novelty of "Limited Liability" wholly entrapped the public—the cautious man of money saw a certain limit to his responsibility, and hence he readily embarked. The man of speculative views and unscrupulous cupidity ran hazards in incurring unhealthy risks, in the hope of securing rapid gains from immediate premiums, regardless of the responsibilities incurred to himself in case of disaster, whilst the founders of companies fostered schemes innumerable, from the facilities afforded by the Legislature to escape with impunity from the power vested in the direction to make calls or wind-up, as the exigencies or requirements of the several companies might demand. The failure of Messrs. Overend, Gurney, and Co., Barned Banking Company, and the several other banks and trading companies, establish the fact that the public are now awake to the defects of the Limited Liability Act—that is to say, a limit is established to limited responsibility trading. No institution can deal in 20,000,000*l.* of paper with only 5,000,000*l.* capital, three-tenths paid-up, with a proprietary in case of absolute solvency whose responsibility is restricted to 3,500,000*l.*, whilst possibly only one moiety of its members are capable of responding to the uncalled portion thereof. Again, the public will scrutinise keenly the share registry in future, and ascertain what number of shares stand in the names of the executive and the rich and opulent members of the association, for it must be remembered that, unlike the London and Westminster, Union of London, and other *unlimited* banking companies, the several shareholders are liable only for the uncalled capital upon their several holdings; and, should the unpaid capital be short of the outstanding obligations, the increased loss falls upon the depositors and holders of bills; hence, in case of over trading, the endorsements of Limited Liability Companies are not worth 20*s.* in 1*l.* The recent collapse of the Bank of London is a forcible example of this principle. It is true the business of the concern is transferred and taken up by the Consolidated Bank, but, its being an unlimited company, the debts will have to be met in full by the solvent shareholders. Had the Bank of London been a limited company it is quite possible that losses would accrue to the customers; but, under the constitution of the bank, all loss will have to be sustained by the proprietary, whilst it is more than probable, had it been a *limited* company, no other bank rightly conducted would have rendered timely succour in the hour of need, for Limited Liability would not have commanded, in times of pressure, that succour which alone would meet their obligations. With these remarks we dismiss the subject of Banking for the present, simply observing that, in our opinion, the sooner legislative measures are adopted to restrict banking and finance companies from conducting their business on Limited Liability the better will it prove for the really enterprising, sound principled, and prosperous portion of the community. It is absurd to foster trading in money when a premium is offered for competition through non-responsibility for all the commitments and engagements entered into.

The progress of British mining is again assuming a more healthy position, though dividends are sadly affected by the low prices of copper and tin. The prices of shares have, however, been recklessly discounted, and quotations now range at a margin offering tempting inducements to incoming shareholders. Dolcoath, Devon Great Consols, Seton, West Seton, Providence, Great Wheal Vor, and other really good and producing mines, sell at ridiculously low prices; and as no question can be entertained of the value of metals advancing so soon as the monetary pressure ceases, holders would do well to refrain from forcing realisation. The very satisfactory state of the Minera Mine near Wrexham, West Chiverton in Cornwall, and the Great Laxey in the Isle of Man, stand forth in bold relief, as instances of prosperous lead mining, and show to all practically associated with those pursuits, that the mining interests of the country have virtually sustained no falling off. The veins are full of minerals, and so fast as one deposit is wrought out another is discovered in rapid succession, so that no fear should be entertained of even temporary exhaustion, for no stratum can withstand the patient and persevering energy of the hard-working and persevering miner. Amongst the prospectively good and promising concerns upon the *tapis* we may name the Llangynog, West Tolgus, North Pool, West Sharp Tor, South Condurrow, and the Bwlch Consols. These mines require only time and moderate further capital to render them successful prizes; and it is highly probable that the day is not far distant when one or more will rank high in public estimation. It should be borne in mind that the Minera, West Chiverton, the Devon Great Consols, and even the Great Laxey, had to encounter difficulties, and were either abandoned, or all but so, ere success was achieved.

78, *Lombard-street, May* 25. R. TREDINNICK.

ON SLATE QUARRIES, AND THEIR MANAGEMENT—No. II.

There has been a discussion in the *Mining Journal* on the "Proof of Slates by Fire." In the slate districts of North Wales most of the cottages are built of waste slate blocks; their fire-places, flues, and chimneys are entirely made of slate; many of them have been built for the last 20 years, and are heated to a great extent, as well as being exposed to rain and storms on the outside, and are now in perfect order. We have also chimneys 50 to 70 feet high erected with waste slate blocks. The writer does not know of any slates, even on the bastard slate rock, some portion of which would not bear heating and cooling; that portion near dykes or posts, which is of a flinty nature, from its near relation to granite, would not bear heating, but slates from this kind of rock have been made, and have been used for roofing and found durable, and the durability of slates is of the greatest importance. The writer knows of slates that have been on a roof from 70 to 100 years, and the quality is as good now as when they were quarried, although they have been exposed to all weathers. There are some quality of slates the more they are exposed the more hardened and durable they get; while others, after being exposed a short time, will decay and wear away, although this slate may bear heating and cooling. Therefore, this proof of slate by fire is no guide to its durability; quite the reverse. When a prospectus of a quarry is drawn out, they generally promise 10 or 15 per cent. a month. A speculator should be very cautious before investing in a concern of this kind, for if there is really profit made there will be sufficient for working capital; but instead of that there are some who profess to make this percentage, and at the same time make continual calls on the shareholders. The writer knows of quarries that make enough profit to carry on the works; the shares in these concerns were never advertised for sale, but some of them have been sold at a large premium.

There are many different ways of making up quarry accounts. Some are made in order to induce capitalists to invest, and to show a surplus of 50 to 100 per cent. on the credit side, which, when minutely examined, ought in reality to be placed on the debit side, and the consequence would be a call instead of a dividend; so it requires capitalists to be very shrewd as well as cautious in perusing slate quarry accounts, for when a certain object is in view some make their accounts by charging all the expenses for outlay. There may be items of large amounts omitted in the balance accounts of work done for a month or more, but when these items are added, and credit given for preparations, the expense of slate making, officials' salaries, royalty, carriage, discount and commission, placed against the value of slate made, it will very soon be seen that the amount is much larger on the debit side than on the credit. The management of slate quarries in Wales is more neglected than any business, and this is entirely owing to capitalists placing some friend or relation as managers, who are of course men of no practical knowledge of slate, and what can they expect but loss? There are some of the quarries that are carried on at a tremendous outlay, with promises of extensive dividends, but these fail, and instead of the expenses decreasing they increase, and although many thousands may be spent in dead work and preparations, yet they appear in as bad a state as ever. If the proprietors employed men who practically understood their work these quarries would return three times the number of slates at half the expense. There is also in some cases much money spent in employing too many officials, as well as thrown away on clearings, openings, and tunnels. Slate quarries in former years were managed very differently to the way they are now, and those especially under the Limited Liability Act. Then, the expense of a quarry employing from 300 to 400 men, would only be 300*l.* a year, or less—that is, including manager's salary, selling the slates clerk, and time-keeper; and these quarries paid a very good dividend, although slates at that time were 40 to 47 per cent. less than they sell for at present. The books were kept at the quarry, and they were stock book, slate bill book, labourers' book, pay-sheet book, cargo book, ledger, and cash book; these were all that were requisite then, so one man could keep them with ease and perfect order, as well as keep the workmen's time. The manager let all the bargains, sold the slates, received the money, and paid the men, and the shareholders received good dividends yearly. There are several quarries carried on now on the old system, but so long as capitalists will continue to keep eight or nine officials, whose salaries are 1600*l.* to 1800*l.* a year, to do the work of two men, how can they expect their concerns to pay, and many of these are friends or relations, who know nothing of a slate quarry. It would be better for such to keep their friends as far as they can from the place, and pay them for staying away, for our Welsh slate quarries get into disrepute all through the management of men of no experience, and always will be set down as ruinous speculations as long as their proprietors will persist in placing such men as their managers. A quarry that employs from 300 to 400 men can be managed by one man, but he must be a practical, honest, and shrewd man, and daily study the interest of his employers in the working and planning the quarry, and avoid having any connection with the workmen, be independent, command respect and obedience, and place himself under no obligation to the men—that is, by keeping any kind of business, such as selling flour, potatoes, coals, or spirituous liquors, &c., for the men very soon take advantage, and a good customer will expect more wages, and of course this will be a loss to the company, besides the loss, perhaps, in having to carry such goods backward and forward, as well as the men losing their time in doing so. If a manager were to have a fixed commission of 2½ per cent. on the value of the slates made at the quarry per month it would induce him to do all he could to get slates, and this system would prove to the shareholders more remunerative than giving the large fixed salaries that are paid in some quarries, whether there is a return of slates or not. It would prove the opinion of the future prospects, and the confidence the manager would have in the returns of the concern, as well as make him careful to convert all slate blocks into sizes, and not throw them into the rubbish heap, as thousands of tons are destroyed yearly in many concerns. But if a man will not undertake to manage on commission it is clear that he has a very faint opinion of the returns of the quarry; this will assist the proprietors to come to the conclusion whether such a man is worthy to undertake such a responsible situation. The writer has heard it stated that this system only induces managers to get all the slates out at once, but this is only to blind proprietors. Unless you have a property with plenty of prospects you may as well give it up at once; besides, what interest would it be to a manager to ruin a concern, and lose his own wages? On the contrary, the practical manager would study hard to keep the concern in productive order, for his own sake as well as of his employer. The above principle of paying managers would make a deal of difference in the present mode of working slate quarries, if tried and established, as well as be the safest way to understand managers and their reports, and whether they know their position. Their reports each month, and the produce of the quarry, would compel their attention and energy, more than a man that has only a stated sum, and visits the quarry once a fortnight or a month, for they would be obliged to be daily at the works, early and late, to watch the progress of the men, and use their leisure time in considering the best mode of working the different parts, and prepare new places and bargains, so as to get a regular supply of slate blocks for the future. But without the proper attention and study of the manager a slate quarry seldom pays. Another time the writer will endeavour to shew a mode of keeping quarry books, so that the proprietors will be able to understand distinctly the working of the quarry, as the accounts ought to be kept very simply, and not enter expenses as preparations, which in reality are dead work, with no prospect of ever being productive, as if dead expenses are so much capital for the company spent on places to produce in the future; this will only lead shareholders to believe and expect returns from places which will never produce. CAMBRIAN ERYR.

LONDON GENERAL OMNIBUS COMPANY.—The traffic receipts for the week ending May 20 was 13,347*l.* 14*s.* 5*d.*

Meetings of Mining Companies.

CAPE CORNWALL (ST. JUST) CONSOLIDATED TIN AND COPPER MINING COMPANY.

The second annual general meeting of shareholders was held at the offices, New Broad-street, on Saturday,

Mr. H. L. PHILLIPS in the chair.

The notice convening the meeting was read.

The report of the directors stated that the operations underground have been confined to the development of the Cape lode, by the extension of the various levels east and west of the engine-shaft, in completing the timbering of the same, in improving the ventilation of the mine, as well as in fixing the necessary pumps and pitwork, and increasing the facilities for drawing the stuff to surface. This has been effected in a substantial manner for permanent working, and has particularly occupied the anxious attention of the executive, the utmost economy having been studied in every department. The works at surface have been pushed on expeditiously, although numerous difficulties and delays have presented themselves, owing to the exposed position of the mine, and which have been particularly felt during the severe weather of the last six months; nevertheless, the dressing-floors are nearly completed, and embrace all the appliances requisite in the improved system of dressing ores: 32 heads of stamps have been attached to the engine, and, in order to effectually provide for the increasing returns from the mine, an additional 30-in. cylinder engine, with 10-ton boiler, has been purchased, and is erected in a most substantial engine-house, thus nearly completing the surface works for all present requirements. The lode upon which operations have been pursued is a well-defined and highly-promising one. In the eastern part it varies in the deeper level from 7 to 9 ft. in width. Its value for tin is variable, ranging from 8*l.* to 20*l.* per fathom. At present the lode is entirely in the killas; but the junction with the granite (the tin-producing formation of this district) will be shortly effected, and which is a point of much interest and importance, as so large and promising a lode is fully anticipated to very greatly improve in richness and in value as soon as it enters its congenial rock. This will be reached in a few fathoms driving. In the western part of the mine the extension of the 70 fm. level is a feature of more than ordinary interest, there being every reason to believe that a course of copper ore will be shortly reached, in which case it may be fairly presumed the property would become exceedingly valuable, Botallack and Levant Mines having made their immense wealth under parallel circumstances. Both the killas and the lode are very congenial for the production of copper, the lode being highly mineralised, containing mundic in abundance, and sprigged with very rich copper ore. A short time since a branch of yellow copper ore was cut in this level, and it is fully anticipated that the junction of this lode with the caunter lode (which will now be shortly effected) will exercise a most beneficial effect upon its productiveness. At any moment this discovery may be announced; but great importance is justly placed upon the intersection with the caunter. In the next level (80 fms.) the lode is productive for tin, showing the mineralised character of the western ground, and confirmatory of the opinion above expressed. When the caunter lode is reached the whole of the south lodes will be economically and speedily intersected by driving upon it. The north lodes (which are promising) will be laid open as the workings are gradually extended. The extension of the eastern levels into the granite and the intersection of the lodes in the western ground with the caunter lode will be now shortly accomplished. Now that the engine-power is sufficient for all purposes, the sinking of the engine-shaft will be also resumed; and there is every probability that in a few months the permanence and value of this property will be fully confirmed and established. In no point could less expenditure have been made with justice to the mine and to the interests of the proprietary. The mine is now in good working order, and the prospects may be justly considered as above the average. Having regard to the immense amount of work performed, the energy with which it has been carried out, and the limited amount of capital at command, it is believed there are few progressive mines which can compare so favourably. Some additional capital, however, is required to continue the operations to a successful issue, and a special resolution will be submitted for the consideration of the proprietors. It is not anticipated that this capital will all be required; but several shareholders consider it expedient to provide for every contingency, and to place the company in a sound position. The directors rely upon individual shareholders exerting themselves to carry out this proposition effectually and promptly, as, if the anticipations of the managers be realised, a very valuable and remunerative mine will be the result.

The CHAIRMAN said, before proceeding to move that the report of the directors be received and adopted, he would avail himself of the pleasing opportunity that was now afforded him of congratulating his fellow-shareholders, not only upon the favourable position which their property occupied, but more especially upon the unusually encouraging prospects which it presented. (Hear, hear.) It would, doubtless, be recollected that at the last meeting—held some eleven months since—one of the principal points referred to was the driving of the 70 fm. level to reach the caunter lode; that would have been accomplished before now but for imperfect ventilation rendering it impracticable for the miners to advantageously conduct their operations. As an earnest, however, of what would be realised when that point was attained, he need only point to the specimens of copper ore on the table, which were taken from a small branch intersected in the 70 fm. level west. If such specimens had been taken from a mine in the eastern part of Cornwall he should attach but little importance to the discovery, but when found in a mine the mineralogical characteristics of which were precisely identical with those of the world-famed neighbouring properties—the Botallack and the Levant—he thought he could not be considered unduly sanguine in entertaining the belief that Cape Cornwall would upon development successfully vie with those valuable copper-producing mines. (Hear, hear.) As regards the eastern part of the mine, the levels were being extended in that direction into the granite, and in something like three or four months hence the 80 and 90 fm. levels would probably have reached the granite, when a large and valuable tin mine would be opened out. He did not, however, for the moment attach very much importance to this part of the mine, because just now tin was so low in price that a large quantity had to be returned before profits could be realised; but they were now stamping tin, and would be able probably to return 6 or 7 tons per month, and, by erecting 32 additional heads, to increase the quantity to some 12 to 15 tons. The primary consideration, however, was the energetic development of the western ground, which it was ceded by all practical men must prove a great and valuable copper mine, basing their opinions upon the irrefragible fact that neither in Levant nor Botallack was success realised under any conditions different from those existent in Cape Cornwall. Therefore, it was not an unjustiable assumption that Cape Cornwall would produce similar results when the "caunter" was reached, which would be done in about 20 fathoms further driving. He dwelt more particularly upon this point, because he was anxious, without exciting expectations of an unduly sanguine character, that shareholders should have a proper appreciation of its real and paramount importance. (Hear, hear.) The shareholders have been already informed that special resolutions would be proposed for an increase of capital, but he did not apprehend there would be any hesitancy on the part of the shareholders to subscribe their proportion, for he felt assured that each would see that by so doing he would be performing only an act of justice to himself. Feeling that any further information that might be desired would probably be better elicited by questions from the shareholders present than by further remarks from himself, he would be content by proposing that the report of the directors be received and adopted.—Mr. ELLIS seconded the proposition.

Capt. GOLDSWORTHY, in reply to questions, stated that the 70 fm. level was unquestionably a point of very considerable importance, for he had never seen a more congenial channel of ground for the production of copper ore anywhere in the district, not even excepting the Levant Mine, where he was agent for some years. He had no hesitation whatever in saying that he had never seen a more favourable channel of ground nor a more kindly lode than there was at the present time in the 70; and if, when the caunter was reached, great and permanent results were not realised, it would be not only exceptional, but contrary to all geological precedent in that famed district. They knew what the "caunter" had done in Botallack and Levant, and there certainly was no reason why similar results should not, under precisely the same conditions, be realised in Cape Cornwall.

A SHAREHOLDER mentioned that from the copper ore recently cut in Botallack a comparatively small parcel was sold, from which dividends amounting to over 1000*l.* were paid to the adventurers.—Capt. GOLDSWORTHY said that he had recently conversed with the purser of Botallack about the Cape Cornwall Mine, when he expressed an opinion to the effect that he would as soon take an interest in the Cape Cornwall as in any mine in the district. (Hear, hear.)

Mr. HOPKINS had understood that the present quality of tin was somewhat below the average of the locality.—Capt. GOLDSWORTHY said that such was the case, and from the obvious fact that the other mines produced their tin from the granite, whereas in the Cape Cornwall it was at present being produced from the killas. As, however, the granite was approached there could be no question a lasting and profitable tin mine would be opened out. The tin lode was about 6 ft. wide, and a fine-looking lode; and he had no doubt by persevering eastward satisfactory results would be realised. The machinery on the mine was quite equal to take the mine any reasonable depth—say, 200 to 220 fms. The tin dressing-floors combined all the most recent improvements, and would be in less than three months capable of returning 6 to 7 tons per month.

The CHAIRMAN thought it would, perhaps, be satisfactory if the manager would inform the meeting if he had any doubt whatever that the caunter would have considerable influence in the produce of copper?—Capt. GOLDSWORTHY saw no reason whatever to suppose that in Cape Cornwall results should be realised different to those in other mines under precisely similar conditions. In the Levant copper began to "make" at about the 54, and at Botallack at about the 60. They were a little deeper in Cape Cornwall. He had do doubt when the caunter was reached all would be perfectly satisfied with the results.

Mr. WARD drew attention to the fact that, although it was stated that copper would not be found in this mine, some had been found—a fact that could not be gainsaid.—Capt. GOLDSWORTHY said that copper had not only been found, but in quantities fully equal to what could be expected at the depth. He should not be surprised if a good course of ore were met with before the caunter was reached.

The CHAIRMAN said the best evidence the directors could adduce as to their opinion of the mine was that they held something like one-third of the whole number of the shares. He had recently increased his interest, and was willing to double his present holding as soon as a copper lode worth 5*l.* per fathom was reached.—Capt. GOLDSWORTHY had known instances where thousands of pounds comparatively had been staked and expended upon points of incomparably less promise than any one point in Cape Cornwall.—Mr. WARD stated that he had seen a letter from Capt. Pryor in which he spoke in the highest terms of the western part of the mine.—Capt. GOLDSWORTHY did not know how a different opinion could be entertained.

The motion adopting the report was put and carried unanimously.

Mr. BOWING had much pleasure in proposing that the retiring directors be re-elected. He felt assured that the board exercised the greatest discretion, care, and ability in the conduct of the company's affairs. (Hear hear.)—The Hon Mr. DRUMMOND seconded the proposition, which was put and carried unanimously.

The CHAIRMAN, on behalf of his colleagues and himself, thanked the proprietors for this renewed mark of confidence, and assured them that no effort would be spared on their part to promote the success of the enterprise, for by so doing they would be benefitting themselves as well as their constituents. (Hear, hear.)

Mr. WARWICK was re-appointed auditor, with thanks for past services.

A special meeting was then held,—Mr. H. L. PHILLIPS in the chair.

The CHAIRMAN said that the object of this meeting was to empower the directors to increase the capital of the company to an extent sufficient to carry on the mine to a success. When the company was first formed it was not anticipated that two engines would be required, in which case the original capital would have been sufficient for all practical purposes. What the directors now asked for was sufficient capital to carry on the exploratory work, and that each shareholder should subscribe his proportion, so that strangers should not come in, and, by taking the additional shares, reap the advantage of the original shareholders' outlay. He then moved "That all clauses in the present Articles of Association relating to the number of shareholders required to form a quorum at any meeting of shareholders shall be and hereby

are repealed, and that in lieu thereof the quorum required to be present before any business shall be legally proceeded with shall not be less than six. That the share capital of the company be and is hereby increased by the issue of 3000 new shares of 2*l*. 10s. each; the sum of 5s. per share to be paid upon application, and 5s. on allotment. The shares to be offered in the first instance *pro rata* to the existing shareholders, and if any be unappropriated, then the remainder to be disposed of by the directors upon such terms as they may think fit."——Mr. BOWING seconded the proposition, which was put and carried unanimouly. A vote of thanks to the Chairman terminated the proceedings.

MAUDLIN MINING COMPANY.

A general meeting of shareholders was held in Castle-street, Liverpool, on Friday, Mr. R. M'CONNELL in the chair.

Mr. G. H. CARDOZO (the secretary) read the notice convening the meeting, and the minutes of the last were confirmed. A statement of accounts was submitted, which showed a debit balance of 1300*l*.

The report of the manager stated that the lode in the 80 has hitherto been productive of much mundic, with occasional rich stones of copper ore. The copper ore in the level above, which for some distance appeared of great value, both in bottom and back of the level, produced but a small quantity of ore, as it did not prove continuous, although while they were opening the level it appeared so likely to continue that all who visited the mine pronounced it a large and valuable course of copper ore. The shoot of ore now in the bottom of the 70 is dipping east rapidly into the disordered ground around the cross-course, leading to the inference that it is likely to be found in the 80, east of the cross-course. In this case he should expect to find the main deposit there, and that the ore already found was only a "spurt" from the main course of ore yet to be reached—this was the only way the appearance could be accounted for in the 70 and 80, unless it be an anomaly throughout, which they do not believe. The lode now in the 80 is large, highly mineralised with blende and stones of copper ore, and, when left unwrought for a short time sulphate of copper exudes from the rock, as when near a large deposit of copper ore. The stratum is similar to that around the large deposits in the old mines. Hence they do not think it too much to expect that similar deposits are near the present points of operation, and therefore would recommend driving the west end into the greenstone, and the east end past the cross-course; also cross-cut still further north to prove the north part of the lode. The lode in the western mine is pretty regular, and producing good stones of copper ore, but being in a patch of greenstone is rather contracted, which it is expected would continue for about 6 fms. further west under the great gossan, where there is every reason to expect a productive lode. Shareholders have been of late much disappointed in their just expectations, for no one could have believed that the lode in the 70 would have yielded so little ore, although the bunches of ore immediately under the gossan are in most mines to a certain extent irregular until a greater depth is attained; but inasmuch as the appearances here are so similar to those about the large excavations of the agents, the strata so similar to that in the most productive copper mines in the district, and the lode going down large and strong, the manager believed that a little further perseverance would be rewarded with success.

The CHAIRMAN having moved that the report be received and entered on the minutes, and that the accounts be allowed and passed, stated that, accompanied by the secretary, he had just returned from a minute inspection of the company's property; and he was bound to admit that, although as regards the past six months' operations disappointment had been the result, yet from the opinion of the eminent authorities who had been consulted—all of whom were perfectly familiar with the geological characteristics of the district—he still entertained as sanguine an opinion that Maudlin would ultimately prove a successful mine as when, some time since, the discovery was made in the 70. (Hear, hear.) It was true that up to the present time the lode in the 80 had not proved equal in value to what it was in the 70, although the stratum surrounding it was, in every respect, precisely similar; but so far as he had been able to glean, the prevailing opinion in the neighbourhood of the mine was that by pursuing the lode east of the cross-course a rich and profitable course of ore would be opened up. A feature of equal, if not even of greater, importance, however, was the tracing of the lode in the 80 up to its contiguity with the greenstone, as at that point there were excellent chances of finding the lode highly productive. He had been told—indeed it was the opinion of every well-advised person—that if the lode proved to be continuous through the greenstone it would be highly remunerative; and in support of that opinion they had before them the fact that some of the Cornish mines situated in the greenstone had been the richest ever discovered—*e.g.*, Wheal Seton and others. He need hardly say that it was a source of congratulation to the committee to be able during the time of such financial depression to present to their co-shareholders a balance-sheet with arrears of call amounting to not more than 5*l*., for while it was a substantial evidence that each was lending his aid to the development of a property which was admitted on all hands to be at least extraordinary in its character, it at the same time reflected the greatest credit upon the gentleman to whom was entrusted the conduct of the company's financial affairs. (Hear, hear.) Having stated that the manager of the mine, who was present, would be glad to afford any additional information that shareholders might desire, he concluded by proposing that the report be received and entered on the minutes, and that the accounts be passed and allowed.

Several special reports from some of the leading agents in Cornwall were read, all of which advocated an energetic development of the different points referred to by the Chairman, and expressed a favourable opinion as to the probable results.

A SHAREHOLDER asked the manager the time he calculated it would take to reach the lode east of the cross-course? From the plan before him of the underground workings, he presumed the distance could not be more than 7 or 8 fms. He considered it was very desirable that shareholders should know how long it was thought probable that would take, as from the remarks of the Chairman—in whom he had every confidence, and whose opinion, moreover, was entitled to respect, seeing that he and his relations held more than half the mine—the shareholders had good ground for expecting important results when that point was reached. He must confess that he was much disappointed but not disheartened, although he purchased his shares some twelve months since at a very high premium, after having consulted a practical agent in whom he had great confidence.

The MANAGER having referred to the different points of operation, gave it as his opinion that, judging from the present appearance of the ground, it would take about three months from the present time to prove the lode east of the cross-course—and although he need hardly say no one could speak upon the point with any degree of certainty—he could not help thinking that the once celebrated Maudlin Mines would ultimately re-occupy their former favourable position. It seemed to him almost impossible that a mine from which such a vast quantity of mineral had been extracted at shallow workings, succeeded by immense deposits of gossan—which had been penetrated by the explorations of the present company—should not produce in depth the most satisfactory results.

Some discussion ensued relative to the desirability of the accounts being circulated among the shareholders prior to the meeting, but upon it being stated that it was unusual to do so in mines conducted upon the Cost-book Principle no proposition was submitted. The motion receiving the report and passing the accounts was put and carried unanimously. During some discussion upon the financial position of the company, the MANAGER mentioned that there were about 20 tons of ore at surface ready to be sampled.

A SHAREHOLDER enquired whether the present accounts—being for eleven months—did not embrace a longer period than usual? He thought, too, they were heavy.

The SECRETARY said that, in consequence of the additional machinery, new flat-rods and timber for the shafts, the costs had been much heavier than they would be in future. As regards the mine, he might perhaps be admitted to mention that in his opinion too much stress could not be laid upon the fact that the "ancients" discovered great riches at or about the same depth east of the greenstone, as the present operations were being conducted upon the same lode west of the greenstone, and under precisely similar conditions.——A call of 5s. per share was made. The committee of management were re-elected, with thanks for past services.

A vote of thanks to the Chairman terminated the proceedings.

WEST CHIVERTON MINING COMPANY.

A general meeting of shareholders was held at the account-house, on May 17, Mr. EDWARD BURGESS in the chair.

The accounts showed a credit balance of 15,225*l*.

The report of the agents stated that the stopes continue to yield their usual quantity of silver-lead ore, and looking at the additional extent of lead ground opened since the last meeting, particularly in the western part of the mine, with the valuable improvement in the 70 west, and the successful opening of the lode in the 100, they could confidently say their prospects were never so cheering, and the mine never at any former period looked so well, as it does at present. The costs were heavier than usual for the quarter. This has been caused by extra charges in the erection of buildings for a new crusher, additions to their dressing-floors, the erection of a saw-mill, and other works now in operation. These extra charges they must anticipate for some time, to complete the works now in operation, and which were absolutely necessary, and would eventually be one of the greatest benefit to the mine.

The CHAIRMAN moved that the report be received and entered on the minutes, and that the accounts be passed and allowed. He stated that it afforded him great pleasure to be in a position to state that since the last meeting the mine had greatly improved in every material point. The ends had been uniformly rich, and the lode in the 100 had been cut of a quality far superior to that at any previous level. He did not think it too much to say that, taking into consideration the length and depth of ore ground, West Chiverton was, undoubtedly, the richest mine that had even been opened up in Cornwall. The operations were being conducted with the utmost caution, the reserves were being gradually increased, and the mineral already discovered was being so laid open as to ensure its being taken away at the least possible cost, and, therefore, with the largest amount of profit to the shareholders. The sole object of the executive being to ensure permanent dividends, the mine was being laid out in a true miner-like manner, and the dressing-floors and machinery were being placed in a thoroughly effective condition. Shareholders should not lose sight of the fact that in the 70, above which there was no level, an important discovery had recently been made, its present value being about 25*l*. per fathom. A rise had been up in the back of the 70 for a distance of about 8 fms., where the lode was worth 20*l*. per fathom. It was also a fact of considerable importance that the 80 had been driven through a course of ore for 150 to 160 fms., and that the present ends are exceedingly rich, that the lode in the 90 was richer than in the 80, and in the 100 far richer than in the 90, while the shaft was in rapid course of sinking to the 110. He felt sure that the shareholders were more than satisfied in being the possessors of a property of such increasingly established value, and the more especially at a time when so much gloom pervaded the commercial world. So long as he had anything to do with the management of the mine it would continue to be his unremitting aim to serve the best interests of the shareholders.

Capt. JULEFF (the manager) assured the meeting at no former period had the mine been in such a condition of permanent prosperity.——Mr. G. BATTERS expressed his thorough approval of the way in which the mine was being worked, and his gratification at its unparalleled prospects. He hoped the dividends would be increased in as great, or even greater, ratio than the present as compared with the amount paid on the last occasion.——The report was ordered to be entered on the minutes, and the accounts passed and allowed.

The CHAIRMAN said that the accounts just passed showed that notwithstanding the heavy extra costs the committee were in a position to recommend an increased dividend, while the reserves had been increased. He then proposed that a dividend of 35s. per (3000th) share be declared, which would leave a balance of 9975*l*. to be carried forward to the credit of the next account.

Mr. BATTERS, in supporting the proposition, stated that although the dividend was by no means a despicable one, it was certainly small as compared with the great capabilities of the mine. The fact was that West Chiverton would not be seen in its true colours, nor its true merits appreciated, for the next 12 months; there could be no question that it was one of those properties the prospects of which were much more brilliant than anything that had yet been realised. Their already great reserves were being gradually increased, and the recent discoveries had placed the mine not only in a position of permanence, but one that was unassailable by market men or by adverse times.

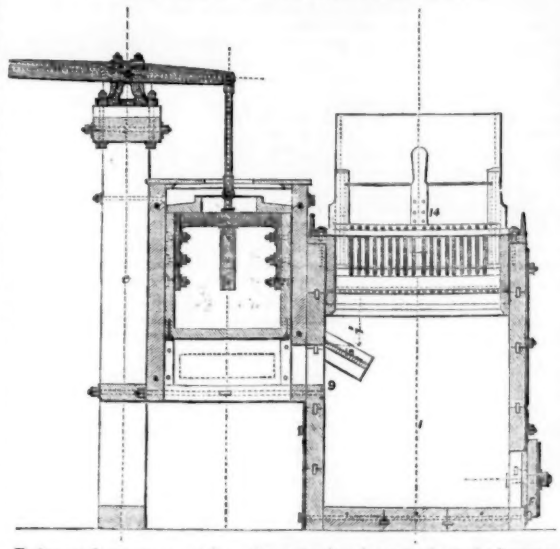
The resolution declaring the dividend of 35s. per share was put and carried unanimously. Votes of thanks were passed to the executive for the successful way in which they continued to conduct the company's affairs.——A vote of thanks to the Chairman terminated the proceedings.

CHAUDIERE GOLD MINING ASSOCIATION.

At a meeting of shareholders, held at Gilbertville, St. Francois, Beance county, on May 5, the following report was received:—

The De Loup Mining Company has opened four lodes. One, on lot 32, in the eighth range of the parish of St. George, 12 ft. deep, the lode being 4 ft. wide; one, on lot 32, in the ninth range, 12 ft. deep, the lode being 4 ft. wide; and one on lot 34, in the same range, 12 ft. deep, the lode being 5 ft. wide. These two lodes are also in the parish of St. George. The fourth shaft is opened on the Medgermet River, and is sunk 12 ft. deep by 10 ft. wide, neither wall being found as yet. A good show of gold has been found here. These works have been stopped until further orders are received from the company. Work has also been stopped on the Rigg's vein for a few days, awaiting orders from the company. Hitherto the rock has been raised out of the shaft by hand, but they are now erecting a whim with which to raise the rock for the future. The De Loup Company, above referred to, is the same as that styled in my last report the St. Lawrence. Alluvial mining is very lively on the Reciprocity Mining Company's land. Powers and Co. have commenced washing the pay-dirt taken out by them during the winter on this land, and have so far taken out 15 ozs. of gold. Rivet and Co., on the adjoining claim, have taken out 5 ozs. 7 dwts. in three weeks, and will shortly resume their work, which was stopped owing to the sugar-making season. The Reciprocity Company is still working in quartz, and intends to go on with alluvial mining as soon as the frost is out of the ground. They will resume work on their quartz reef on the Kempt stream in about ten days. The snow has almost entirely disappeared, and the roads are beginning to be in better condition. By the beginning of June we expect to see a large number of capitalists, which will, I have no doubt, cause mining to go on more briskly.—JNO. C. MURRAY.

IMPROVED ORE-DRESSING MACHINERY.



Reference has upon several previous occasions been made to the improvements in ore-dressing machinery, invented by Mr. John Hunt, of Porthleven, and certain further modifications have now been introduced which render the machine as near as may be perfect. In its present form the contrivance may be regarded as an entirely new invention; indeed, it has actually been patented as such, and, as will be seen from an advertisement in another column, a working model, of a size sufficiently large for treating about a couple of tons a day, may be examined in London. The above diagram will enable the construction of the machine to be readily understood. The ore to be treated is fed on to a sieve, consisting of a perforated copper grating, and is continually lifted by the force of the water, and allowed to fall by its own weight until the entire mass has completely arranged itself, according to the varying specific gravity of its several constituents. The machine consists essentially of three compartments, of which the first is that through which the water is supplied; the next contains a forcing-box, and a chamber of an oblong shape, by which the water is forced through suitable passages into a receiving hutch, in which the ore is operated on; this latter is divided by one or more partitions, and the sieve, or perforated plate, fixed near the top part of the hutch, is also divided by low partitions, and placed immediately over those below. The holes in the perforated plate or sieve are made conical, the small part being fixed uppermost; and the size of the holes must be varied according to the coarseness of the orey matter to be treated. A bottom of ore, about one inch in thickness, more or less (of the necessary specific gravity), and too large to pass through the perforated plate, is placed in each division; and, as the ore is, by the action of the water, carried from the hopper, or feeding part of the machine, to the discharging part, it is deposited in each division according to its specific gravity. For instance, if the orey matter to be treated consists of a mixture of lead and zinc, or lead and copper ore, with a matrix of quartz, &c., the lead ore will be deposited in the first division, and the zinc or copper in the second, the waste being thrown off.

The action of the machine is obvious; the application intermittently of sudden pressure by the descent of the plunger in the forcing-box, causes an upward current through the sieve upon which the ore is placed, and the chief object to be sought is to keep the orey matter under treatment as much suspended as possible; but as the pressure of water required to effect this necessarily varies according to the gravity of the ore operated upon, Mr. Hunt has provided a regulating passage-way between the forcing-box and the several division of the hutch, so that varying pressures can be obtained in each. Thus, assuming an ore containing lead, blende, and refuse to be under treatment, the opening to the compartment of the hutch nearer the hopper would be wider than that further from it, and in the divisions above the sieve the bottoms of lead and zinc ore respectively would be provided, the machine would then be set in motion, and the particles of stuff would speedily arrange themselves, the lead passing the lead bottom, and the lighter, the zinc, through the zinc bottom; the refuse passing still further onward, and being disposed of as convenient. It has been proved by experiment that the machine is applicable not only to the treatment of the ordinary metalliferous ores of Cornwall and Devon, but also to that of gold and other ores requiring the greatest nicety in their manipulation. For treating alluvial deposits of gold or crushed quartz, a similar separation, according to the specific gravities, will be the result; and so delicate is the action of the machine, when properly worked, that it will not only save fine gold, but precious stones, such as diamonds, sapphires, and rubies, which are frequently found with alluvial gold, will, in consequence of their weight, be saved,—indeed, any kind of orey or other matters can be separated, when differing sufficiently in their specific gravities.

REDUCTION OF SILVER ORE.—The opinion is very confidently expressed by the most experienced of quartz workers that the crushing by stamps, erroneously called the Cornish method, cannot be superseded. That its simplicity, effectiveness, and economy over anything that has ever been tried has been so often proven that but few will now pay any attention to so-called improvements. Now, however, that Americans have entered into the business of mining and the reduction of ores, we may look for many attemps at improvement, with a fair probability of success. For hundreds of years the processes of reducing silver ores have been at a standstill. In Prussia is the Freiberg process, in England smelting with lead, and in Mexico and South America the patio. These processes are the scientific portion of the reduction, and we do not look for the discovery of any new principles in the science, but for scientific and mechanical aids in carrying the known principles into effect. The patio process as used in Mexico, where it was discovered, requires from thirty to ninty days for the operation of a single body of ore, and is accompanied by immense labour, loss of silver and mercury. The same principle of reduction is applied in reducing the ores of the Comstock lode, but by the use of iron pans, vigorous trituration and artificial heat, the operation is effected in a few hours. This is a vast improvement, but is chiefly mechanical. It is in this direction, however, that our inventors have generally turned their attention, and with marked success. In the smelting process we have as yet done nothing. This process is undoubtedly brought to perfection in England, but that perfection is founded on their abundance of cheap fuel, and may require different arrangements where different conditions obtain. In Nevada is a fine field for the trial and working of this process, from the abundance of argentiferous galena ores, and the necessary flux accompanying them. In adopting this process for the most profitable manner of working in our section of costly fuel, a fine opportunity is offered to the metallurgist and inventor. The third, principal, and most complete process is the Freiberg. If we cannot improve upon the scientific principles of the process, we may on the mechanical appliances by which it is usually wrought. The late discovery by Mr. Crookes of the effect of sodium upon quicksilver, and its assistance in amalgamation, shows that even yet the field of science is open for further discovery and improvement. The mechanical department of silver reduction is more open to observation, and it is in that direction we may expect the most attempts at improvement. People are apt to wed to the methods in which they are taught, and thus we account for the tenacity with which they adhere to certain things, and the slight attention they pay to improvements. Americans, however, have not yet been taught metallurgy, and are, therefore, unprejudiced; consequently, they are not only willing but anxious to investigate and adopt new processes and new machinery. As the iron pan has been found so great an improvement, is it not encouraging to study further? It may be possible that the crusher style of mill will supersede stamps, notwithstanding the venerability of the latter. But even should it not, there is undoubtedly an inviting field open for the perfection of stamps, and the mode of operating them. Stamps are used in all countries. In Saxony their usual weight is but 300 lbs., and they make three strokes with each revolution of the driving-shaft. In this State it is usual to have stamps weighing from 600 to 800 lbs., which fall twice, and often only once, in the revolution in the driving-shaft. Again, if stamps cannot be superseded, would not a crusher be a very economical and efficient aid in preparing rock for them? These are pertinent subjects for the study of our scientists, mechanics, and architects. The great business of nearly one-half the United States is to be that of mining, and he who makes valuable improvements in any department does a public good, and secures himself a fortune.—*Reese River Reveille*, Feb. 13.

ROCK RORING MACHINERY.

In an interesting discussion which followed the reading of the paper on Mr. Low's Boring Machinery (a description of which has already been published in the Journal), before the Institution of Mechanical Engineers, Dr. DOWNING said he had seen the boring-machine at work in the Roundwood Tunnel, and had been enabled to collect a few data as to its action. As regarded the rapidity of boring the holes, which was of course an essential consideration, he believed that 1 inch per minute might be taken safely as about the rate of the actual boring. He had seen a hole 20 in. long bored in 22 minutes, with boring tools 1¾ in. diameter, and the same length had also been done in 18 minutes; and 20 in. in 20 minutes might be taken as the average rate of boring. It was not very easy to ascertain the exact time occupied per hole so as to include all the shifting of the machine, &c.; the practice was to draw the machine back after six or seven holes had been bored by it, and then a few more holes were made by hand in those parts of the face of the heading where the machine could not readily be worked; and all the holes were then fired nearly simultaneously. Including all these operations he believed 45 minutes for each hole would be a fair average to take for all the holes, including both those bored by the machine and by hand labour. The tool was never withdrawn, as the hole was cleared out by letting a jet of water under a high pressure play constantly into it during the working of the machine, and the water assisted by the reciprocation of the tool cleared out all the loose material as fast as it was detached by the tool. This was done more effectually than by the ordinary mode of occasionally scraping out the hole when manual labour was used. The tool was usually withdrawn at about every 7 in. length bored, for the purpose of inserting a longer boring tool, the nuts upon the screwed guide bars being set back by hand. Before firing the charges in the holes the machine was drawn back to a sheltered spot, the distance varying with the progress of the work; at the time when he saw the machine working it had to be drawn back about 50 or 60 ft. from the working face to the place of shelter. The machine ran upon a tramroad, and was drawn back very quickly, so that there was very little time lost in moving it. The present work was the first application of the boring-machine in regular work, and the machine now in use was the third that had been made, containing several improvements upon the two previous ones. Five more of the machines were now being constructed, he understood, which were all intended to be employed upon the Roundwood Tunnel. The cost of the machine itself with its carriage was about 225*l*., and the cost of the air-compressing engine about 210*l*.

Mr. Low said the weight of the machine was about 2 tons, including the carriage; and it could be employed for sinking a vertical shaft, in which case the weight would be only about 30 cwts. including the frame.——Mr. J. MURPHY said that in the present machine there was some appearance of complication, arising probably from the number of small parts of which it was composed; but the utility of a boring-machine when applied for sinking vertical shafts had been strongly exemplified at Cardiff, where one of Messrs. Mather and Platt's boring-machines had been employed with great success to bore for water. That machine bored a well of 18 in. diameter at the rate of 20 to 30 ft. per week to a depth of 295 ft., chiefly through the Old Red Sandstone rock, from which excellent water was obtained; and the well now yielded a supply of about 500 gallons per minute, which was used for brewing purposes. Another of the same machines had been employed also at Middlesbrough to bore for coal, and had bored a hole of 22 inches diameter part of the way, and afterwards 18 in. diameter to a total depth of 1300 feet, through New Red Sandstone; and he had no doubt the machines would soon be brought into practical operation for various purposes.

The PRESIDENT enquired what was the rate of advance of the tunnel per day at the part where the machine was now working; and what had been found to be the practical advantage of boring by the machine as compared with hand labour?——Mr. JOHN ANDREWS replied that in the very hard lower Cambrian rock, in which the machine was now working, the rate of advance of the tunnel was from 6 to 8 in. forward per day, the size of the tunnel being about 6 ft. high by 5 ft. wide. With regard to the comparative advantage of boring by the machine or by hand, he had seen a hole of from 20 to 24 in. deep bored by the machine in from 15 to 20 minutes in a part of the rock not intersected by quartz veins, and three tools only were required to perform this work; but to do the same work by hand labour would have required two men for about two hours, and would have taken as many as from 20 to 30 or even 40 tools. The expense of boring by the machine was about equal to that of hand labour, but the machine had not yet been at work long enough to do more than about 12 or 15 yards of direct work.

The PRESIDENT enquired whether by putting a sufficient number of men upon the work the tunnel could be driven as fast by hand labour as by the machine?——Mr. J. ANDREWS said there was so little room for working at the face of the rock, on account of the small size of the tunnel, that the machine would bore more holes in a given time than it was possible to do by hand labour under any circumstances.

Mr. J. MURPHY enquired what was the difference between the machine now described and that employed for excavating the large Mont Cenis tunnel between France and Italy, which he understood was advancing at the rate of about 3 ft. per day?——Mr. J. ANDREWS believed the boring tools were similar in the two machines, but the Mont Cenis machine consisted of a large frame carrying eight boring-cylinders and tools working independently by compressed air; an adit was driven by this means 9 ft. square, and the whole size of the tunnel was afterwards completed by hand labour to about 26 ft. by 24 ft. As many as 80 holes, 3 ft. deep, were bored in the adit face before blasting. Each boring part of that machine could only work horizontally, and was longer and larger than in the present machine, in which the boring tool could be turned to any angle and set to work either horizontally, forwards, sideways or vertically, or at any intermediate inclination, by means of the several adjustments provided in the frame of the machine, so as to suit the best position and direction for inserting the hole, in order to obtain the greatest amount of shaken rock at one blast.

OBTAINING PETROLEUM BY HYDRAULIC PRESSURE.—Dr. Otto Rotton, of Brooklyn, U.S., has patented a new method of obtaining petroleum by hydraulic pressure, the advantage of which is stated to be that the work is done at one-sixth the cost of pumping and blowing, and that it requires neither steam-engine, engineers, pump, nor blower. Dr. Rotton can commence operations at any stage after a well has ceased to flow, or at any stage in a well or reservoirs where blowing can be used. The well is emptied in one-fourth the time now employed. It is claimed that in nearly all abandoned wells much oil will be obtained; in many, more than they have ejected before, because the pump and blower can only exhaust that which is in the sack or crevice immediately below the tubing. "Now, there may be ten to twenty sacks or reservoirs in one cavity, separated by inequalities or walls; by allowing water to flow over each of these, one by one, we can bring the oil on the surface of the water, in range of our educting tube, and elevate it to the surface of the earth by hydraulic pressure; and where petroleum is at a great depth separated from the main sack or fissure by rock salt, we then send fresh water which will dissolve this rock salt, and opens communication with large fissures of oil, which cannot be done by water already saturated with salt."

PETROLEUM WORKING AS A SCIENCE.—The procuring and treatment of petroleum has obtained so important a position in America as a national industry that the trade is now carried on with the certainty of a science The Humboldt Mining and Refining Company was one of the earliest, as well as one of the most important, engaged in the trade, and every opportunity is taken to adopt the newest and most economic processes. The method of refining practised, like that in other places, appears extremely simple in its general outline, while its daily practice in detail, in order to ensure satisfactory results, must be accompanied by great care and the utmost precision. A brief synopsis of the common and hitherto practiced method of changing the dark green, noisome, filthy fluid known as petroleum into the bright, sparkling, and purified article of refined oil, will not be uninteresting. At the Humboldt Works there are twenty-five stills, varying in capacity from 20 to 40 barrels, prepared to receive the crude oil. This stills are nothing more than hollow iron vessels, very similar in shape and appearance to an ordinary boiler, without, of course, having any flues through them. The oil is emptied into them and then exposed to a sufficient heat to convert it into vapour. A pipe leads this vapour as fast as it rises from the still into the condensers. When the heat begins to operate the lighter substances which the oil contains rise. First comes the benzine, benzole, or naphtha, which may be considered nearly synonymous terms, representing the same substance in its several variations from a lighter to a heavier density. After the benzole comes the oil, which is received into separate vessels. When the oil ceases to come there remains in the stills a quantity of thick, dark matter, comprised of the extraneous substances of the oil. This fluid is generally taken out when it has obtained about the consistency of common tar, but more resembling cold tar in its properties. It can, by constant exposure to heat, be cooked down to the consistency of pitch or even into coke, but does not generally pay for the trouble. At the works it is taken out about the consistency of tar used for fuel. The capacity of the refinery is between two and three hundred barrels per day, and will, when present improvements are complete, exceed the latter quantity. The amount of tar supplied from the stills answers the purpose of fuel admirably, and supplies that essential in more than sufficient quantities for the whole establishment, the surplus being turned into the creek as valueless. It is not valueless in cities, where it supplies a variety of useful purposes: this value, however, is not sufficient to warrant its transportation from Cherry Run during the present depression in the oil trade, and hence the surplus has to be thrown away.

PETROLEUM AS A STEAM FUEL.—The boiler made some time ago in the factory of Woolwich Dockyard after the designs of Mr. Richardson, to test the practicability of burning petroleum for steam purposes, on Tuesday had two fires made under it, keeping up a powerful supply of steam throughout the day, for the special inspection of Capt. W. Edmonstone, C.B., A.D.C. to the Queen, and recently appointed superintendent of the yard. The boiler, which appears to have been built on too confined a compass to exhibit the full effect which it is proved can be produced by petroleum fires, has been fitted with tubes for superheating the steam and consuming the smoke. It appears, notwithstanding its small dimensions, to have yielded a satisfactory result, and the general opinion is that a very short time must elapse before it will become the acknowledged and universal steam fuel for marine and other locomotive engines. The small labour necessary for lighting and keeping up the fires will render the duties of the stokers very light.—*Times*.

COMMERCIAL VALUE OF OXYGEN.—The general application of oxygen to lighting and heating purposes has been proposed in Paris. The expense has hitherto been the obstacle to its introduction, for although there are many substances which yield oxygen in abundance, they are all too dear. Mr. Arehereau has proposed the reaction of silica upon the sulphate of lime as a source of oxygen. When these substances are heated to a proper temperature silicate of lime and two gases—sulphurous acid and oxygen—result. The former is used for the manufacture of sulphuric acid, and the latter it is proposed to compress into cylinders and sell by the cubic foot. The materials here used are very cheap, and the heat required to fuse them will be obtained from a mixture of common gas and oxygen. The silicate of lime could be used in the manufacture of glass. By directing a jet of oxygen through an ordinary gas burner the illuminating

power of the gas is greatly increased, and a saving of from 40 to 50 per cent. effected. The introduction of the oxygen into the flame has also important consequences to health. It will destroy all the noxious gases which have escaped the purifiers, and only water and carbonic acid will result from the combustion. The amount of these latter will be less than usual, for the reason that greater illuminating effect is produced by the employment of a smaller quantity of gas. By the combustion of illuminating gas and oxygen nearly the same heat is obtained as in the oxy-hydrogen blow-pipe. All metals can be fused by this means if placed in suitable crucibles, and the cost of large furnaces and expensive fuel will be saved in numerous industries.

TRUTH'S ECHOES, OR SAYINGS AND DOINGS IN MINING.

There has been a little more activity in the Mining Share Market this week than noticed for some time previously, but whether it will last is a matter of uncertainty, as there are so many counteracting influences, arising from the unsettled position of the financial market, and the further decline in the standard for copper ore; still the present unprecedented low quotations of mining shares generally affords an opportunity of investing that may never occur again. All that is required to give a stimulus to the Mining Share Market is an advanced price for the produce, and although there is at present in the metal market a restricted amount of business there is little or no doubt but a change for the better will shortly take place, especially for copper.

WHEAL SETONS have been enquired for, and some transactions reported.—WEST SETONS are still very flat.—CLIFFORDS have been more freely dealt it, without any change in price.—EAST BASSETS have been in request at improved prices.—WEST CHIVERTONS are in fair demand, and several transactions effected. The mine is reported to have much improved.—CHIVERTON MOORS have been more freely dealt in, but prices have fluctuated.—WHEAL CHIVERTONS continue dull, but a few shares have changed hands.

CAMBORNE VEANS find buyers at fair market quotations.—TINCROFTS are rather quiet.—BULLERS are unnoticed at present, but at very low prices.—WHEAL BASSETS are less active.—WHEAL GRENVILLES have been very quiet, but in EAST GRENVILLES more dealings have taken place, but without an improvement in price.—GREAT LAXEYS have been in good in good demand, and several transactions reported.—GREAT NORTH LAXEYS have been more freely dealt in, and quotations are slightly firmer.—FRANK MILLS are less active, and show a tendency to recede.—SOUTH DARRENS continue firm, but not in request.—CENTRAL MINERAS have been sought for at buyers' prices.—NORTH TRESKERBYS have been in fair demand, and left off a little firmer.—GREAT BUSYS have changed hands at nominal prices.—HALLENBEAGLE and GREAT NORTH DOWNS are more than ordinarily quiet.—WHEAL ROSE shares are not in request, although the mine is reported to be looking well.—GREAT SOUTH CHIVERTONS are offered at lower rates, without buyers.—GREAT WHEAL VORS in fair request, and left off slightly firmer.

EAST LOVELLS are quiet, and prices slightly receded.—ROSEWARNE UNITEDS are enquired for at fair market quotations.—ROSEWARNE CONSOLS are less active, and more freely offered.—ST. IVES CONSOLS have been enquired for at nominal figures.—EAST CARADONS have been in a little better request, and prices slightly improved.—MARKE VALLEYS continue much the same, with little doing.—WEST CARADONS are less enquired for.—TRELAWNYS are also quiet.—DRAKE WALLS have been sought for at nominal prices.—PRINCE OF WALES shares have been freely dealt in, and prices improved, leaving off with a favourable tendency.—EAST RUSSELLS find buyers at fair market quotations.—LADY BERTHA and CREBOR are remarkably quiet.—BOTTLE HILLS have been offered and unnoticed at trifling figures.

EAST CARADON, upon the whole, has improved since last noticed. The caunter in the 80 east is worth 15*l.* per fm.; and 90 east, 8*l.* per fathom.—New Lode: The 70 west is worth 6*l.* per fm.—South Lode: The 70 west is worth 15*l.* per fathom; and the 70 east is worth 12*l.* per fathom.

WEST CHIVERTON.—The position and prospects of this property are more than ordinarily good; and to enumerate the value of the respective points of operation would exceed the limit afforded. At the same time, it may be observed, that the lode in the 100 east and west is worth 80*l.* per fm. each end, whilst there are other places of equal and greater value. The progress making in seeking for other lodes, and the opening of the extensive runs of maiden ground, is satisfactory, whilst the several shafts which are being sunk will ultimately greatly facilitate the vast returns of ore which must necessarily be made, and it only requires time to establish this as the greatest lead mine in the country. The several ends now in operation are estimated at 800*l.* per fathom.

ROSEWALL HILL AND RANSOM UNITED.—Notwithstanding the continued depressed price of tin which all tin mines have to contend with, it is gratifying to learn that the loss sustained by this mine during the last three months does not amount to 70*l.* The prospects here are of a very encouraging character, especially in the 90 and 100, east of Ransom, where the lode in the two ends are worth from 25*l.* to 26*l.* per fm. together. The winze in the bottom of the 90 is valued at 18*l.* per fm.; and the stopes above the 90 and 100 are estimated as averaging 12*l.* to 16*l.* per fm. The 85 east, and the stopes above are worth together 21*l.* per fathom, whilst there are promising and productive lodes in the 140 and 120 east. The engine-shaft is down 8 fms. below the 170, which they are sinking for an 184 fm. level, per contract, which, when completed, will open some valuable ground under the 170, where the lode is worth 25*l.* per fm. Should any advance take place in tin this mine will be in a profitable position at once.

ROSEWARNE UNITED continues to look very promising, the different points of operation referred to last maintain their value and prospects: 130 tons of good copper ore were sampled on Tuesday, which even at the present standard is expected to realise 780*l.*; which parcel could have been augmented but for the low price, and should the standard advance, which is fully anticipated, the next two months' sampling will, no doubt, make up for the present deficiency.

CENTRAL MINERA.—The improvement recently noticed in the back of the 30 continues not only to look well, but holds out considerable promise of permanency, the lode holding good, and improving.

BRYN GWIOG is spoken of as having very much improved in several important points, but more especially in the back of the 66, where the lode is yielding from 7 to 8 tons per fm.; this change is not solitary, but it is deemed advisable to wait further development before a value can be placed upon the other discoveries. JAMES LANE.

From Mr. EDWARD COOKE.—There has been altogether a better tone in the market, and a larger business done than for some time past. Notwithstanding the decline in the standard for copper ore, the demand for copper is improving, and is very likely to advance in price. In anticipation of this the shares in several copper mines have been dealt in to a considerable extent. CLIFFORDS, EAST CARADONS, and WHEAL SETONS have been in special request at higher quotations. There has also been a good demand for PRINCE OF WALES shares. If the discovery of ore that has recently been made had taken place in ordinary times, the price of the shares would certainly be double to what it is now. Fifty tons of copper ore, taken from only 9 fathoms of ground, and realising upwards of 9*l.* 10*s.* per ton, is a fact which speaks for itself. It is the opinion of practical men that no such discovery has been made in Cornwall since East Caradon first cut rich. It will not surprise me to see a considerable rise in the price of these shares forthwith. A very considerable improvement having taken place in TRESAVEAN, induces me again to place this mine before my readers. For a low-price mine there certainly never was a better opportunity of making a small outlay for the chance of realising a great prize. The present price of the shares is ridiculously low, and the working costs of the mine moderate, and this has been nearly met by the return of ore, so that, unlike finance companies, the shareholders in such a mine as this really incur only the smallest risk, as the costs are regularly charged up and paid. I presume the public have by this time been perfectly convinced of the justice of my previous remarks relative to the merits, or, rather, demerits of the various financial companies. In order to secure large profits the most risky business has been done, and with what result is most painfully apparent to a large number of unfortunate shareholders.

It is not only in the columns of the Journal that I have endeavoured to deter the public from being led away by the large dividends paid by the financial companies, but my correspondents can bear testimony how urgently I have persuaded them from investing in them. The present financial crisis has proved disastrous to several banks, some of which were supposed to have been in a position far beyond any suspicion of unsoundness. It would be presumptious of me to repeat what has been said by the best authorities as to the causes of the difficulties several banks have experienced. No doubt those that can tide over the present crisis will secure the confidence of the public. Among the banks of the more recent formation none, probably, has been more tried than the Alliance. It has stood the test of one of the most severe runs upon its resources that was ever experienced, and has proved itself equal to the emergency. There is every probability of its yet becoming one of the noblest banking institutions in the City of London. Referring again to mines, I introduce Tincroft, Great Vor, and East Lovell as mines that will continue to give dividends, even at the present low price of tin. The drop in the price of tin made a difference of 7*s.* 6*d.* per share on East Lovell for the four months, and still the profit for that period allowed of a dividend of 7*s.* 6*d.* per share. Tincroft meetings are to be held six-monthly. This mine is still making profits, to admit of a fair dividend at the next meeting. When I made some remarks relative to Frank Mills Mine last week, I had not received the circular, and it certainly took me by surprise that no dividend was to be made at the coming meeting, especially as one of the officials of the company paid me 5*l.* 15*s.* per share, for 50 shares, only a few weeks since, and wished to have 50 more at the same price. I hope the shareholders will not sacrifice their shares.

From Mr. BAKER LELEAN:—Although some of my friends thought the view I in my letter of last week took of our monetary and commercial condition and prospects, after the crisis which culminated on the 11th of May, to have been by far too favourable, I think I may refer to the circumstances that have since transpired in justification of what I then ventured to suggest. There have been further banking and commercial failures, but they are as nothing compared with what followed upon any former panic; and in spite of the still persistent efforts and machinations of the combination of "bears," who have so far succeeded in depreciating the market value of nearly all descriptions of negociable property as to render much of it, for the time, worthless, the markets have, upon the whole, and with sundry fluctuations, exhibited a strong tendency towards improvement, checked only by the adverse operations I have adverted to, and the still uncertain state of continental affairs. The commercial failures that have taken place during the week furnish no evidence, nor do they afford any well-grounded suspicion, of the banking or trading interests of the country being in other than a sound condition; their comparative fewness, on the contrary, points in an opposite direction. In mining shares an amount of business has been done that is, upon the whole, satisfactory. Great Laxey, Prince of Wales, Wheal Seton, Chiverton, Chiverton Moor, East Caradon, Central Snailbeach, Clifford, Camborne Vean, Great North Laxey, West Chiverton, Rosewarne Consols, Chontales, St. John del Rey, and Frontino have been, more or less, in demand, and some of them have advanced in price. In fact, the appearance of the mining share markets, in London and elsewhere, unmistakably indicates an upward tendency, and a considerable revival of business, as the special retarding circumstances now standing in the way are removed. There are some capital mines still in the markets, at prices far below their real value, and they do wisely who resolve not to permit an opportunity, that may not recur for several years, to go by without ensuring a portion of the advantages it offers for the purchase of good shares. I am glad to be able to say that there is nothing from the mines otherwise than satisfactory. At CHIVERTON, Cookney's shaft seems to have reached the course of ore gone down in bottom of the 80, and which is found to be worth from 1 to 1¼ ton of lead per fm. Murray's shaft is down 15 fms. below the 86, and they discreetly purpose to continue to the 100 before they drive, which they will then do with encouraging prospects before them. The shares in this mine are well worth buying at the quoted price. At CHIVERTON MOOR the 50 cross-cut is in 8 fms., and they expect to reach the lode in about a week or ten days. What I have said of the shares in CHIVERTON may be said of the shares in this mine; in fact, the shares in all the mines around West Chiverton are worth attending to, whether to hold or to sell. There is nothing worthy of special notice from either GREAT SOUTH CHIVERTON, CENTRAL SNAILBEACH, or ROSEWARNE CONSOLS. The workings are continued towards the several points without let or hindrance, and the prospects of success are undiminished. The improvements reported at GREAT WHEAL VOR, ROSEWARNE UNITED, CENTRAL MINERA, and GREAT WHEAL FORTUNE hold good, and shareholders are looking cheerful. The increase in the dividend just declared in WEST CHIVERTON is as much, perhaps, as we had any right to expect as a first step on the part of the directors towards meeting the reasonable expectations of the shareholders. The still very large reserve fund wants further reducing, however. At the present price the shares will return 10 per cent. to the purchaser; and the riches of the mine, the value of the reserves, and the extent of the funds in hand, beyond anything that can ever be wanted to carry on the operations, place them amongst the most eligible investments to be bought. At GREAT LAXEY they are justifying, even sooner than I expected, what I have been saying as to the increased returns from the mine. The next sale of lead will be about 200 tons, being an increase of about 50 tons in the three weeks. It is almost startling to think that persons who want to make good investments—at once safe and profitable—should neglect such channels as those offered by this mine and West Chiverton. Amongst the other shares that may be profitably bought just now are those of EAST LAXEY and EAST SNAILBEACH, both of which are looking remarkably well.

FOREIGN MINES.

ANGLO-BRAZILIAN GOLD.—Capt. T. Treloar reports the gold return for March amounts to 1491 oits. (172 ozs. troy). This return, it is pleasing to note, is the highest by 208 oits. yet obtained. At the mine the operations generally have progressed satisfactorily.

DON PEDRO NORTH DEL REY GOLD.—Capt. T. Treloar reports the gold return for March amounts to the pleasing figure of 7082 oits. (817 ozs. troy). It has been derived as follows:—Maquiné, 6052 oits.; Morro de St. Anna, 1030 oits. The operations generally have progressed satisfactorily.

ST. JOHN DEL REY MINING COMPANY (LIMITED).—Advices received from Brazil, May 2:—

Morro Velho, March 29.—GENERAL OPERATIONS: During the past two weeks our general work, both in the mines and at surface, has gone on with the usual regularity, and without any considerable interruption. The breakage of one of the stamps-axle gudgeons of the Powles stamping-mill rendered it necessary to stop the stamps, for the purpose of putting in a new one. Advantage was taken of this stoppage to have some other requisite repairs effected; the whole was completed, and the stamps put to work again within 24 hours. There has been ample water power to drive the pumping, hauling, and reduction machinery at full rates of speed, and average duty has been done throughout.

MINES.—The native force in the mines has been unusually large, augmented rather unduly by the discharge of a considerable number of miners, mechanics, and labourers from the service of a neighbouring gold mining company. We have had more men in the mines in some days than the stopes we are at present working could give advantageous space for, but this circumstance was soon overcome by devoting an increased force to the work of exploration. The unfavourable state of the weather prevents the additional hands being drafted to Gaia. On the first change and cessation of the rains this will be done. The timberwork and stoping in the mines have been prosecuted with a large force, the sinking in both mines is being carried on with spirit, and more than the ordinary amount of general work has been accomplished, giving a good supply of stone for the spalling-floors. The daily haulings have been quite up to the average, and the pumping operations have been performed steadily and effectively. There is no change to report in the lode in either of the mines.

WEST QUEBRA PANELLA.—This section is now sending up an increased quantity of stone, the proportion of killas continuing about the same as heretofore. The quality of the pyrites remains the same in the lowest level cut into.

REDUCTION DEPARTMENT.—A good supply of water, and a sufficient supply of stone, affording ore for the consumption of the whole of the stamps, have admitted of quite average duty being done by the stamping-mills, the only drawback being the stoppage of the Powles stamps of 24 hours, as stated in a previous paragraph of this letter. The stone received has been carefully separated, and the ore broken at about the usual gauge; a good quantity of killas, rather a maximum proportion, has been rejected, broken, and conveyed to the Praia Works. The treatment of the sand has proceeded without any irregularity, and has been attended with the usual effect in amalgamation.

GOLD EXTRACTED TO DATE.—The produce from the stamps for the second division of March, being a period of eleven days, amounts to 19,307 oits. It has been derived as follows:—

	Oitavas.	Tons of ore.	Oits. per ton.
From General Stamps	12,701	from 1099·2	=11·554
„ Herring ditto, East Bahu	3,130	353·6	= 8·851
„ Lyon ditto, M. and W. Cachoeira	3,476	373·6	= 9·304
Total stamps produce	19,307	1826·4	=10·571

The foregoing produce from the quantity of mineral treated, giving as it has done an average yield of 10·571 oits. per ton, may be considered a very good and large return of gold. It is to be noted that the highest yield is from the ore treated in the general stamps, which includes the mineral raised in that section of the Bahu called the "Gut," and which contains a large proportion of ore free from killas, and the ore quarried in the East Cachoeira, which also gives a good return in the stamps. The ore from the West Cachoeira has given a high yield—9·304 oits. per ton.

The gold troop left on the 27th inst., in charge of Mr. G. Morgan, jun., for Juiz de Fora, en route for Rio Janeiro, taking 21 boxes of bar gold, containing 64 bars, and weighing 100,909·1 oits., or 969·431 lbs. troy. This remittance is the produce of a period having two days less than the previous two-monthly one.

Advices received May 21, 1866, per French steamer, *Navarre, via* Bordeaux:—

Morro Velho, April 17.—GENERAL OPERATIONS.—Since addressing on March 29 we have had two weeks of unusually wet and unfavourable weather for this season of the year. The roads at many points have become impassable, and traffic in other localities has been paralised, the general supply of both materials and provisions lessened, and prices in several articles have risen considerably. This may be only temporary. Since yesterday there appears to be a change in the weather, giving hope of a more favourable season having already begun. Excepting as regards traffic beyond the establishment, our usual operations have been conducted with tolerable regularity and fair results. We have had a supply of water in excess of our requirements, and the general machinery has been kept fully at work in hauling, pumping, and reducing the ore.

PRODUCE.—The produce for March amounts to 57,821 oits., and has been derived in the following manner—viz.:

	Oits.	Tons ore.	Oits. p. ton.
From General stamps	34,729	from 3115·2	=11·148
„ Herring, East Bahu	8,911	976·8	= 9·122
„ Lyon, Middle and West Cachoeira	9,387	1052·8	= 8·916
Total stamps produce	53,027	from 5144·8	=10·306
Arrastres produce	2,047		= 0·397
	55,074		10·073
Praia produce	2,747		
Total produce	57,821		

The above gold return may be considered large, both as a monthly produce and as showing a high standard yield from the ore treated. That reduced in the general stamps has given the highest yield per ton—viz., 11·148 oits.—the supply from the Bahu and East Cachoeira affording a good proportion of clean and good ore from these mills. The general standard yield of 10·703 oits. is very good, and the daily gold produce of 1865 oits. may be regarded as more than an average return from the mines. This produce is the result of a fair stoping of the lode throughout the mines.

COST AND PROFIT.—The produce being .... 57,821 oits.
Deduct loss in melting ..... 294 oits.
57,527 oits., at 7*s.* 9*d.* .. £22,291 14 3

Cost—Labour ..... Rs. 65,259 $787 } Rs.112,432 $842, at 2*s.* 0¼*d.* 11,477 10 5
Other charges Rs. 47,173 $055 }

Showing on the working for March a profit of £10,814 3 10

The outlay on the Fernam Paes Estate for March amounts to Rs. 185 $500=19*l.* 0*s.* 9*d.* The cost for March is heavier than usual; prices in some articles of provisions have been rather higher for the time being, but our labour expenditure has been heavy, the quantity of materials used has been much above the average, and mechanics cost for mine requirements has been very large. In these items, which are not likely to be permanent, the increased cost consists. We are using, and will continue for some time to take into use, some heavy and expensive pumpwork, and this tends to increase the outlay, but this is a necessary, and will, ere long, prove to be a wise expenditure, tending to facilitate the keeping of the mines free from water effectively, and thereby promoting the sinking, which is so essential for raising a full quantity of ore.

MINES.—We have had a very large attendance of natives in the mines during the month of March, giving the following daily average:—

Native borers	284·92	
Others	13·12	=298·04
Natives working daily, average		448·07
Others		451·00
Average daily force in mines		899·07

Which is an unusually high attendance, being 30 above that of February, and, being for 27 working days, has caused a considerable increase in the native pay compared with the previous month of February, which had only 24 working days. The duty performed in the mines, as shown by the number of wagons per mine account, amount to 10,248 wagons, being equal to 34·38 wagons per borer employed. These wagons have given 8705 tons in the reduction department.

In the CACHOEIRA MINE the sump has been sunk 3 ft. 3 in. vertically. The stoping has been carried on vigorously throughout the month, though the quarrying does not produce the same proportion of stone to the number of holes blasted as in the Bahu. The lode in the middle Cachoeira is still contracted, hard to quarry, and yields a small proportion of ore. In the East Cachoeira there appears to be an increase of ore; it is clean, free from killas, and yields well. A very large amount of timberwork has been accomplished in this mine during March. The pillar construction is being forwarded, and a considerable amount of repairs and reprieves effected.

In the BAHU the sump has been sunk 5 feet vertically, and the stoping carried on through the four available stopes, which have given a large quantity of stone, and a good proportion of ore, some of first quality. The lode in the East Bahu appears to have rather more killas than formerly, but immediately west of this the stope is large, and contains a large proportion of good and rich ore. Some timberwork has been done in this mine in the extension of the stulls, and a good deal of repairs and some renewals effected in the timberwork upward of the shaft. The general work in the mines has been very well performed; the only drawback has been from an unusual number of the miners having been temporarily on the sick list from a severe type of catarrh, prevalent at this unusually wet season of the year.

WEST QUEBRA PANELLA.—The first of the three stopes taken off from the East Quebra Panella is now entering the lode in this section, so that we may soon expect to have a better supply of ore from this part of the mine. The driving in the East Cachoeira (section 83) discloses a contraction in the lode, though the quality remains good; at present it is about 3 ft. wide, clean, and free from killas.

REDUCTION DEPARTMENT.—The following shows the duty done in this department during the month:—

Stamps working 31 days, average	132·43 heads.
Ditto 135 heads	30·19 days.
Arrastres ditto 31 days	26·00 days.
Stamps produce each per head per diem	13·00 oits.
Arrastres produce each per head per diem	4·920 oits.
Ditto on that of stamps	4·05 per cent.
The sand amalgamated amounts to	3584 cub. ft.
Which yielded an average of 15·36 oits. per cubic foot.	
The mineral reduced amounted to	5144 tons.
The killas rejected, and used at Praia	3350 tons.
The unrecovered gold contents is shown as 14·27 per cent., or 1·783 oits. per ton.	

The supply of stone has been good during the month of March, but it has also contained a large proportion of killas, which had to be picked out, rejected, and spalled for the Praia Works. The spalling has been effected at about the usual gauge, and the stamps and machinery kept fully employed in the reduction process.

PRAIA.—At these works the following produce has been extracted:—

Stamps with killas re-treating sand	1627 oits.
Arrastres ditto	1120
Making a total produce of	2747

The arrastres gave an average produce of 6·130 oits. each per diem; the monthly return of gold from these works is very good. There was an interruption to the working of the Illingworth wheel of about 12 hours for needful repairs; otherwise the stamps and arrastres have been kept constantly at work during the month.

GOLD EXTRACTED TO DATE.—The produce from the stamps during the first division of April, being a period of 19 days, amounts to 16,490 oits. It has been derived as follows—viz.:

	Oits.	Tons ore.	Oits. per ton.
From General stamps	10,993	from 1024·8	=10·726
Herring ditto, East Bahu	2,790	308·0	= 9·058
Lyon, Middle, and West Cachoeira	2,707	324·0	= 8·354
Total produce	16,490	1656·8	= 9·952

There is not quite so good a return as we had in the first division of March. In that division there was more ore reduced—about 180 tons, which would almost account for the difference of the return of the two divisions now compared. There has been a stoppage for the necessary repairs to the Powles stamps and axles, which lessen the duty of that (our largest) stamping mill. The standard yield per ton from the ore treated is not three-tenths of an oitava per ton below the return of the first division of March. The health of the establishment is, on the whole, now good.

VAL ANTIGORIA.—Thomas Roberts, Crodo, May 14: The lode in the 10 fm. level north continues to be 4 ft. wide; it now contains a leader of auriferous pyrites, 14 in. wide. The increase of pyrites in this end should be considered an important improvement. We shall state particulars in our next. The lode in the winze sinking under this level, south of shaft, has still further increased in value; it yields now 1 oz. 6 dwts. of gold per ton of ore by the native mills. We shall smelt about 2500 grammes of amalgam at the end of this month, all obtained by trials with the native mills. The cutting down of the shaft is progressing favourably. We shall commence next week to excavate for the winding machinery-floors, and for making a road from the shaft to the new amalgamating-mills. One of the water-wheels for two large mills is completed. These two new mills will be put up during the week. All other work connected with the excavations and buildings for other mills is being pushed on, but many of our men have left for the army.

VALLANZASCA GOLD.—J. Roberts, T. Roberts, May 12: Since our last the mills on the bottom floor have been regularly running, and have worked well. We shall smelt the large quantity of amalgam on hand on the May 28, and send the returns for your next meeting. The remittance of gold cannot fail to be highly satisfactory, although the greater part of the ore treated this year is still from the lower levels. As soon as the mills on the upper floor can be completed the daily yield of amalgam will, of course, be greatly increased. At the bottom, the several stopes being worked in the lower levels yield very large quantities of good average ore. The stopes in the upper levels continue as rich as last reported. The dark side of this picture is the continued forced departure of our best men to the war.

VAL TOPPA.—W. Jenkin, May 12: Since our last great progress has been made at the establishment. All the machinery to drive the first ten mills is in its place, and so are also six of the mill beds; the last of the remaining four is to be delivered in the early part of next month. The fixing of the crusher is also being carried on with great speed. The upper and last tunnel is completed, and the greater part of the cement against walls of water-course has been put on. The work connected with making and putting in place the launders forming part of the water-course has advanced considerably during this month, and will be completed in due time. At the mine our prospects are looking very satisfactory for large returns of gold, the lode in the end of Marmo Rosso level being without change since last reported on. The miners are now engaged in this level in stripping down part of the lode which has been left standing on the footwall, worth 2 ozs. of gold per ton of ore. The stopes in back of this level continue to yield large quantities of rich ore. The lode in back and bottom of Fisher's level is 10 ft. wide, yielding 1¼ oz. of fine gold per ton. We are happy to say that we have now a full supply of water for running all our native mills, and have made up to this date amalgam enough to yield 195 ozs. of fine gold. We shall smelt gold at the end of this month, which will be remitted to the office the first day of next month. The law which has called all able men into the army has fallen very heavily upon this concern during the last few days, and particularly as regards the construction of the establishment. Nearly all our best mechanics and workmen have left, and it is impossible for the present to replace their labour.

RHENISH CONSOLS.—G. Sweet, May 17: We have sufficient water to drive both wheels at Bilebach. We shall now commence the fixing of the engine at Fahrenberg, and it shall be ready as soon as possible. We hope to get Christiania engine at work before the end of June. We have not set more than 1 lachter in Christiania shaft, and that is not yet finished. We have fixed a small pump in the sink at Christiania, and work it with the engine. I trust by to-morrow the water will be out, so that we can commence sinking the winze, which is necessary to afford ventilation to the 10 lachter level. The end driving east is not so good as it has been, but the rise and stopes remain the same. The water in No. 2 winze at Wright's, on the north lode, has greatly diminished, so that I hope shortly to resume sinking. This winze is 5 lachters deep, and the lode at this depth is worth 20 centners per lachter, so that when it is communicated with the 10 lachter level it will lay open a large piece of stoping ground. The end driving on the middle lode west has passed through the large cross-course, and we have the lode on the western side. I now conclude that the two north lodes are distinct. The new stopes on the north lode, west of cross-cut, are worth 16 centners per lachter, and promising in appearance. The stopes to the east of the cross-cut are also greatly improved. The end driving west on the south lode is now in contact with the cross-course, but it has laid open several lachters of profitable ground. On the whole, the mines are presenting a very favourable appearance.

CAPE COPPER.—April 7: Mr. Steele writes from Cape Town that rains had fallen in Bushmanland, and that the cattle were in consequence improving. From the mines there is no alteration in the progress of the various operations. The top rock, the removal of which has for some months past impeded the extraction from the mines, was nearly cleared, and Capt. Clemes, therefore, looks forward to an increased monthly yield. Rains had fallen in Namaqualand, and it was hoped that the coming winter would prove a moist one, and the carriage of ore be carried on vigorously. No improvement had taken place in Spectakel; it had yielded during March 54 tons. The extraction from Ookiep during the same period was 250 tons. The stock of ore on the beach was 425 tons. The *Ocean King* was at Hondekilp, and had discharged a portion of her outward cargo of coals, coke, &c., and was to commence loading her homeward cargo immediately: 30 tons of ore were shipped at Cape Town on board the *Anglian* steamer to sail about April 20.

WEST CANADA.—Capt. Plummer, May 8: Huron Copper Bay: The lode in the 30, east of shaft, is poor, but there are reasons to believe that it will improve. The stope on the east of the shaft yields 3 tons per fm., and that on the west 1½ ton; there are four men driving on the north branch, west of shaft, where the prospects are favourable. The winze in the bottom of the 10 is not set for want of hands. The two stopes on the west of Palmer's are yielding as usual, about 3 tons per fm., and on the east 2½ tons per fm. The stope on the north branch is worth 1½ ton. Bray's engine-shaft is down to the 50, and we should have let the driving east and west, but had no hands to put there. We have commenced to sink Palmer's shaft below the 30; the lode is rich at this point, and will yield 4 tons per fm. The stopes east and west of Carmichael's winze are not turning out so well as we expected; we have, however, a good lode below this point, and believe the stopes will shortly improve.—Wellington: The lode in the west of Grenfell's is worth 1½ ton per fm.; and on the east and west of Rowe's winze the stopes yield about the same quantity. The lode in Mitchell's shaft yields 2 tons, and is promising for the future. The stope east of Rowe's is worth 3 tons. On the west of Colling's 2 tons. The 35, west of cross-cut, on new lode, is worth 2 tons, and shows favourable indications. The stopes on the Fire lode, west of Grenfell's, are yielding about 1¾ ton per fm. each.—Bruce Mines: Ferrier's shaft has been for some time suspended. Trial's shaft is stopped, and the men are driving east and west; the lode east turns out well, and is yielding upwards 1½ ton per fm.; on the west, however, it is not so good. The stope at No. 1 shaft seems to be improving, and that on the east of the engine-shaft is also yielding better. The stope west of Ferrier's yields 1½ ton per fathom. The dressing operations are going on well, and the weather being favourable for surface work we are pushing on all matters as fast as possible.

NEW PROCESS FOR TREATING GOLD AND SILVER ORES.—According to Dr. Hagan's process for disintegrating and desulphurising gold and silver ores, superheated steam is introduced into fire in such a manner that in gaseous form the steam impinges upon the ignited coals or wood, without admixture of atmospheric air, and thus effects the decomposition of water into oxygen and hydrogen gases. The oxygen unites immediately with the carbon of the burning coals or wood, while the liberated hydrogen passes from the fire and burns in the presence of the oxygen of the air. The hydrogen flame and the resulting gases being brought into contact with the heated gold and silver ores, the sulphur, arsenic, antimony, &c., are dissolved, and are carried off with the products of combustion. The powerful effect of the flame of the hydrogen, in dissolving pyritous sulphur, arsenic, antimony, &c., and in attacking oxygen, is well known, but the expense of producing it has hitherto prevented its application to the disintegration and desulphurisation of gold and silver ores. Not until the invention of Dr. Hagan's cheap and simple method of decomposing water, and thus furnishing hydrogen gas and flame abundantly, has it been at all possible to apply it to this purpose. Furnaces are now operating by this process in California, which receive charges of 60 tons, and are eminently successful.—*Colorado Register.*

MORE ABOUT SODIUM AMALGAM.—Much has been said, and many experiments have been made, by myself and others, in amalgamating with sodium. In the course of these experiments I had brought to my knowledge, by Prof. Filmer, a celebrated electrotyper, a fact (the results of which I had long known and acted upon, but never before was aware of the cause) that I take pleasure in communicating, hoping that it will be of the same benefit to my fellow-miners that it has been to myself—that all polished metallic powders, or bright metallic surfaces, are coated so intimately with, so to speak, infinitely fine particles of air, that it is very difficult to wet them; and in the case of the metallic powders, such as bronze or fine bright gold, almost impossible to settle them in water for the reason given above; and in the case of the latter, if it is not wet it is not easily amalgamated. Potash or a caustic alkali has been found to remove this difficulty, and allow the powders to precipitate, and bright metallic surfaces to be wet. Take, for instance, bronze powder and put it in a glass partly filled with water, it will be found almost impossible, if not entirely so, to wet and precipitate it. Now, add a solution of caustic potash, and the difficulty is removed. The same will be the effect on a polished steel blade. I have found in working sulphurated ores on a large scale an almost identical result, whether using sodium amalgam or caustic alkali, in both cases finding not only the bright sulphurets amalgamated, but also the pan on parts where there was any trituration. What is the result of exposing sodium to the action of water? Certainly a strong alkaline liquid from the hydrate of protoxide of sodium, or soda, that is dissolved. Sodium amalgam decomposes water rapidly, absorbing the oxygen and freeing the hydrogen, as can be seen by putting a little sodium amalgam into a test tube and filling the tube with water. Of one thing we are certain, a strong solution of potash or soda attacks such metals as lead, tin, zinc, &c., and if they are in solution in the mercury, if no other result follows, the mercury is made more nearly pure, and is much more active. If in the use of sodium amalgam and caustic potash the results are the same, which I have found without exception in gold-bearing ores (I have not tested them on argentiferous ores), which is the cheaper? It may pay for others to experiment and see if the results will be the same as they have been with—ISRAEL W. KNOX: *Golden State Ironworks, San Francisco.—Mining and Scientific Press (U.S.)*

HOLLOWAY'S OINTMENT AND PILLS—DOMESTIC REMEDIES.—There are two periods, especially in woman's life, which require, for safe passage, judgment and attention. Irregularity is apt at those critical times to take place, and to lay the foundation of future disease. Holloway's ointment well rubbed over the defective organs will soon restore them to the full performance of their natural functions, and completely relieve the system of these first seeds of disease. The pills, safe in action and effective in result, should likewise be taken, as they contribute materially to the ointment's efficiency. The proper use of these domestic remedies prevents nervousness, hysteria, erysipelas, dropsy, and a host of similar and often serious disorders. By expelling all impurities they maintain a clear silky complexion.

Mining Correspondence.

BRITISH MINES.

BAGTOR.—Wm. Hosking, May 24: The lode in the 30 end, driving west of Prosper engine-shaft, is now 1 ft. wide, composed of capel, quartz, and a little tin. I have suspended the 20 end, east of Quickbeam engine-shaft, and set the men to sink in the bottom of the 16, west of Prosper shaft; we shall by those means prove the continuation of the shoot of tin gone down in the bottom of this level, and be effecting ventilation for the 30 when the end is sufficiently extended to communicate. The whole of our machinery is in good working condition.

BEDFORD UNITED.—J. Phillips, May 23: There is no change to notice in any of the operations on the north lode. The lode in the 103 end west is at present in a disordered condition, being split in several branches. The stopes throughout the mine continue to yield the same quantity of ore as for some weeks past.

BEDOL-AUR.—H. R. Harvey, May 23: The ground in Crofts' shaft continues hard, but is getting more like the ground we had in driving the 70 yard level. The 77 end north-east is still yielding some stones of lead. The pitch in bottom of the 70 does not at present make much yield of ore, but I look for an early improvement.

BRONFLOYD UNITED.—T. Kemp, May 24: The part of lode carried in driving the 52 west has improved; it is now worth 15 cwts. of lead per fm., and judging from the appearance of the present end I expect a still further improvement here. The ground in the cross-cut to point of new shaft is harder to open. The stope in the back of this level, west of winze, continues to yield 25 cwts. of lead per cubic fathom. The stope east of winze produces 20 cwts. of lead per cubic fathom. The new shaft is now down 23 fms. 3 ft. from surface; the ground continues favourable, and fair progress is being made with this important work. The machinery is in good order, but our water power is getting very scarce.

BRYN GWYN.—H. Nottingham, May 22: The level driving south-west from the middle of the incline, east of shaft, is without change. The same joint going north, towards the other workings, is rather wider, but no improvement for lead. I purpose driving this level through to the other workings, whether it should be productive or not, as it is required for the ventilation of the level going south; we have about 5 fms. more to drive for this purpose. The men that were driving the cross-cut west from the lower level, south of incline, are now driving south on the joints (containing some lumps of ore) intersected by the said cross-cut; this we shall name the lower level driving south-west from the middle of incline. Clark's level, driving north on the joint of lead, is yielding some fine lumps of ore, but rather less in quantity than last reported. We have sampled 4 tons of smalls and 2 tons of round ore, to be sold next Thursday.

CALDBECK FELLS CONSOLS.—J. Kitto, May 21: In my visit to the mines a day or two ago I was much pleased to find the 80, or the deep adit, in the caunter lode, still penetrating good ore ground. The ends both east and west of cross-cut have been continued during the month through a very fine looking lode, worth on an average from 2 to 3 tons of lead ore per fm., and at no time were the prospects more encouraging than at the present. In the 80 cross-cut, immediately over this point, since my last report we have intersected the main part of the same lode, which is equally promising in its character, worth at least 2 tons of good lead ore per fm. We have started a cross-cut in the 70, for the purpose of intersecting the same lode, where we expect to meet with the same satisfactory results. This I consider one of the most interesting and important features ever discovered in the mine. The lode in the 30 west has also considerably improved in appearance, but so far the ore in it is not of sufficient importance to value. In the eastern part of the mine there is no change to notice, but the prospects, on the whole, are still very encouraging. The stopes throughout the mine are much the same as last reported. The new engine-shaft is sunk 8 fms. from surface, and would have been sunk deeper but for the surface water, which has considerably retarded our progress; we hope, however, with the summer before us, that this impediment will only be of short duration. We are clearing out foundation for engine-house, and shall soon be in a position to let the contract and commence with the buildings. The crusher-house is up and the crusher in its place, and the engineers and others are now busily engaged putting in round buddles, jigging-machines, and other necessary dressing-machinery. We have a large accumulation of good leadstuff on the dressing-floors and underground awaiting the completion of the machinery. I was much gratified with the favourable that has recently taken place at Dry Gill. The lode is very large, producing saving work for lead; in fact, I have not seen a more promising lode for a very considerable time; and I believe, if fully developed, that it will prove highly productive and remunerative.

— *Telegram:* Friday, Twelve o'Clock, Noon: Two ends in the 90, and one end in the 80, on the caunter lode, are worth fully 2 tons 15 cwts. each per fm. of rich blue lead.

CAPE CORNWALL.—R. P. Goldsworthy, May 23: The lode in the 100 end east, and in the stopes, is without change; this remark will also apply to the 90 end east. The 90 fm. level stope is improved. The lode in the 90 end west is very kindly; we are expecting an improvement at this point daily. The 80 fm. level stopes west are improved for tin. The lode in the western stope is producing occasional stones of yellow copper ore. No change in the 70 end west; the lode is still of a highly promising character, spotted with rich yellow copper ore; we shall push on to intersect the caunter with all possible dispatch.

CARADON AND PHŒNIX CONSOLS.—W. Richards, May 24: Since the date of my last report of the mine we have intersected an oblique branch from the south in the engine-shaft, about 2 in. wide, containing quartz, fluor-spar, mundic, and yellow copper ore, which has had the effect of improving the character of the ground and lode in the deepest point reached. The lode is about 2½ ft. wide, at the present time containing less capel, more quartz, fluor-spar, mundic, and yellow copper ore. The carpenters are getting on well with painting the wheel, angle-bob, launders, &c.

CARADON CONSOLS.—S. Bennetts, May 22: There has been no lode taken down in the end during the week. In the east end we have met with the eastern part of the cross-course, hence the reason probably why the lode here has been small and poor for some days past. In the rise the lode has again changed to a fine gossan, containing some good ore. We are progressing favourably with the 54 cross-cut, and expect to cut the lode in the course of next week.

CASHWELL.—J. Peart, May 22: The stopes in Scar limestone and slaty hazle continue the same as last reported. We have cut the vein in the eastern part of the sett (or Dawke's end), and will prove the vein in the Scar limestone below and in the slaty hazle above; this is the same vein we are working at Cashwell and in the same strata, and all whole ground between the two mines.

CASTELL CARN DOCHAN (Gold).—J. Parry, May 23: There is no alteration in the stopes to report. The water increased so much in the shaft at the end of last week (six men could hardly keep it down) that we thought it advisable to abandon the sinking, and shift the miners to rise in the adit, though the air was exceedingly bad in it. But, I am happy to say, that we broke yesterday evening into a joint, which lets a deal of water out. I hope that we shall be through very shortly, as this flow of water greatly improves the air. The stamps are working well, but the water is very light. Gold obtained from the amalgamators to-day, 7 ozs. 10 dwts.; quantity stamped up to date is 142 tons.

CLARA UNITED.—J. Davis, May 23: Llywernog: There is no material change to notice in any part of the mine. The dry weather still continues, and our water supply is decreasing very fast. We have given up crushing for the present in order to keep the wheel going as long as possible, and keep the water out of the mine. In old Clara the mine is drained to about 2 fms. below the 20 fm. level, and we are now drawing up the bottom lifts.

CLOWANCE WOOD.—E. Chegwin, May 23: The sumpmen are engaged putting in bearers and cistern at the 20, and putting in rods from the adit to the 20. We are getting on as fast as possible to complete this lift from the adit to the 20.

CRENVER AND WHEAL ABRAHAM UNITED.—Wm. Kitto, May 24: Crenver District: We fixed the bucket-lift at Wilson's engine-shaft last Thursday at the 60; whilst engaged about it the water rose 6 fms., and it took the remainder of the week to fork it out again; we have dropped the lift 11 fms. in a clear shaft. We stopped the middle engine last Sunday about midnight, began to fix the bucket-lift at the 60, and completed it this morning, and dropped the lift 3 fms. below; it came in contact with something which prevented our dropping farther for the time. We are now in a position to drain the water, and hope to get to the 80 in a fortnight or three weeks from this time. We have six men employed clearing up old Crenver engine-shaft below the shallow adit, which is full of stuff to the deep adit; this is an important shaft in clearing out the eastern part of the mine. We have six men clearing up the old footway-shaft below the deep adit in this part, which is full of stuff for about 10 fms. further. We have nine men clearing and laundering the deep adit in this part, and expect to finish it next week. We have erected a horse-whim on Wheal Abraham footway-shaft, and eight men are engaged clearing stuff and putting down footway or ladder-road below the deep adit. The carpenters are busily engaged putting up pulley-stands from the middle steam whim-engine to Vivian's shaft in order to clear out this part of the mine. We shall finish in the course of a day or two making a large reservoir, and shall put the house water-lift to work next Saturday at Wilson's, which will give us a supply of water for all surface operations, dressing of copper ore, &c. We have still three men clearing and repairing the adits in the western part of the mine, and will be required for some time to put it in good order. We are busily engaged about our surface operations, too numerous to particularise.

CROWAN AND WENDRON.—R. Reynolds, May 23: The engine-shaft is down to the 60, and the shaftmen are preparing to drive west on the course of the lode; also having holed the winze and rise we shall now proceed to drive the 48 east by four men.

CUDDRA.—F. Puckey, A. Candy, May 22: In Walker's shaft we have about 4 feet more to sink to complete the depth for the 130 fm. level, inclusive of the trip-plat and fork, when we shall commence to cut the plat. In the 117 fm. level, driving west on the south lode, the tin part continues 10 ft. wide, and is still worth 1 ton of tin per fm. for that width. On the north lode, going west in the 117, we have now cut into it 7 feet, and have not yet reached the north wall; this lode is a very promising one, and is composed of quartz, peach, gossan, and tin, worth for the latter from 4 to 5 cwts. per 100 sacks. In this level further east there is nothing new to report since last week. In No. 1 stope the lode is worth 25*l.* per fathom. In No. 2 stope the lode is worth 20*l.* per fathom. We have commenced sinking a winze below the 105 fm. level, west of Walker's shaft, in order to prove down the lode, which we find to be very large, and of which we are carrying about 6 feet, producing saving work for tin, and very promising for improvement. On the whole, our prospects in the 117 are exceedingly encouraging.

DALE.—R. Niness, May 21: The improvement in No. 5 stopes, mentioned in my last, still continues. The other places are without alteration. The vein in the old mine is producing good ore, and has every appearance that it will lead to something good.

DEVON GREAT MARIA.—J. Richards: It affords me much pleasure to be able to inform you that the middle lode is increased in size, being now from 2 to 4 feet wide, composed of capel, quartz, mundic, &c., and embedded in beautiful strata, so similar to that of Devon Great Consols, that I should myself be at a loss to distinguish one from the other. On the Orchard lode we have driven nearly opposite the engine-shaft found some time ago, and I have just completed the dialling of the adit level, and find we have to drive about 5 fathoms only in a north-east direction for holing with this shaft, and which the men will commence almost immediately. You are already aware of the very fine prospects of this lode, it being from 10 to 12 feet wide, composed of capel, quartz, mundic, and yellow and black copper ore, with every indication of a splendid course of copper below. You will remember seeing this lode in the adit level, and from which we got the orey part, and I need not say that, having discovered the engine-shaft so near this spot will greatly facilitate the early discovery of large deposits of copper ore, and which exists in abundance, if we may judge from indications, and I verily believe there are tens of thousands of tons at no great depth. You may rest assured that this is no ordinay speculation, but offers chances of an early and large discovery not often met with in young mines, and compared to which some of the financial companies of late have given us proof that they are not to be held in comparison—in fact, I consider mining, well selected, is comparatively a safe investment.

EAST CARADON.—J. Truscott, May 23: Caunter Lode: The 80 east is worth 15*l.* per fathom; the 90 east, 8*l.* per fathom; and the 90 west produces stones of ore.—New Lode: The 70 west is worth 6*l.* per fm.—South Lode: The 60 east produces stones of ore; the 70 east is worth 12*l.*; and the 70 west, 15*l.* per fm.

EAST DARREN.—May 22: Taylor's Shaft: In the 116 east the lode is from 2 to 3 ft. wide, with spots of lead ore, but to value. In the 104 east the lode is 3 ft. wide, yielding from 10 to 12 cwts. of lead ore per fm. The lode in the stope over this level, west of Evans's winze, is 6 ft. wide, producing fully 2 tons of ore per fm. In the stope over the same level, east of Taylor's shaft, the lode is from 8 to 9 ft. wide, producing 12 cwts. of ore per fm. In a pitch over the same level, 10 fms. west of Taylor's shaft, the lode is 10 ft. wide, producing from 10 to 12 cwts. of ore per fathom. In the pitch below the 92, 45 fms. east of Taylor's shaft, on the south part of the lode, the lode is 7 ft. wide, producing about 1¼ ton of lead ore per fm. In the pitch over ditto, west of Evans's winze, the lode is 7 ft. wide, producing 1½ ton of ore per fm. The pitch over ditto, 5 fathoms west of Taylor's, the lode is 2½ ft. wide, producing 10 cwts. of lead ore per fathom. In the 92, west of boundary, the lode is from 2 to 3 ft. wide, producing stones of ore at times, but not to value. In the rise over the 80 east, 3 fms. behind the forebreast, the lode is 4 ft. wide, producing 1½ ton of ore per fm. Three pitches over this level are producing on an average, for the width of the lode, 1¾ ton per fm. In the winze sinking below the 68 east the lode is ¼ yard wide, producing about 1 ton of lead ore per fathom. Two pitches over this level are producing on an average 1¼ ton of ore per fm. We intend sampling on Tuesday next, May 29, 75 tons of lead ore.

EAST GUNNISLAKE AND SOUTH BEDFORD CONSOLS.—J. Phillips, May 24: We are driving by the side of the lode in the deep adit, east of Gard's shaft. The lode in the shallow adit is 4 ft. wide; it is composed of spar, prian, mundic, and black ore, and is a very fine-looking lode; it is showing great indications of its being very near the cross-course. In the Chimney Rock deep adit we are driving by the side of the lode.

EAST JANE.—J. Seccombe, T. Hodge, May 24: In the 48 south, on the eastern lode, it is small, composed of white iron, flookan, and spots of lead; in the same level, on the western lode, the lode yields good stones of lead occasionally, and presenting a very good appearance, which leads us to expect an early improvement. In the winze sinking below the 36 south the lode is yielding dressing work. In the 36 south there has been no change to report since our last. Our machinery is all in good order, and working well.

EAST PROVIDENCE.—J. Nancarrow, Wm. White, May 19: We are making fair progress in sinking Boorman's shaft; the ground is most congenial for tin, and the lode has a promising appearance. There has been no lode taken down in the 82 east for this month. The ground in the 70 east is improving, and we seem to have nearly got through the unproductive part of the lode. We are sinking a winze below the 50, and expect to communicate with a pitch above the 60 by the end of this month; lode worth 7*l.* per fathom. The pitches present just the same appearance as for some time past, but we have not quite so many tributers working.

EAST ROSEWARNE.—J. James, May 24: At King's shaft, sinking below the 85, the lode is 1 ft. wide, and producing stones of ore. In the 85, east of King's, the lode is small and poor. In the 85, west of King's, the lode is 9 in. wide, producing a little ore, but not to value; we expect an improvement here shortly, as we are approaching the dip of ore ground from the 75. There is no change to notice in the 85, east of Hallett's shaft. The 85, west of Hallett's, is still in the slide, and the lode disordered; when we get clear of the slide we expect a good lode. The stopes are much as last reported, except that in the back of the 75, west of King's, which has much improved, and worth 20*l.* per fm.; this is important, there being a quantity of whole ground before us.

EAST SNAEFELL.—W. H. Rowe, May 23: There seems to be a change taking place in the bottom of the Glen Cherry shaft, now down nearly 8 fms. What we regard as the hanging-wall of the lode has now a more vertical underlie, without any corresponding alteration in that of the footwall, and, as a natural result, the lode is, for the present, smaller—about 3 ft. wide. The lead is just now more disseminated through the quartz, than in the form of a branch. We expect the lode is either about to "nip" (a temporary contraction, of common occurrence), or, what is more likely, the underlie altogether now changing to a more favourable angle, on getting clear of the upper and disturbed ground. I was yesterday levelling, &c., with a view to the erection of a water-wheel. The most favourable site appears to me to be close to the junction of the Glen Cherry stream with the main river; this point is admirably adapted for the cheap erection of one of 30 ft. diameter, being the exact height obtainable by taking the water from immediately below the new wheel-case at Great North Laxey.

EAST ST. JUST UNITED.—J. Carthew, Peter Casley, May 23: Saturday last was our pay and setting-day, and all went off well. In sinking the engine-shaft we have not cut into the lode, neither do we intend doing so until we get down to the 20, as we expect when the lode is cut into it will let down pretty much additional water. The Cranjack shaft, sinking below the 20, is in a large, kindly lode. In the 20 and 10 east the lode is 2½ ft. wide, with good stones of tin. The stopes over the 10 are in a good paying lode. At North Bosarne we find the winzes are down in a run of good looking tin ground. We have set stopes here at 10s. in 1*l.* tribute: this ground is likely to pay well. At Wheal Venton we have the new shaft through to the deep adit, and shall get the whim to draw stuff from here to-morrow, in order to clear. We shall soon be in a position to work the tin ground in the bottom.

EAST WHEAL GRENVILLE.—G. R. Odgers, W. Bennetts, March 23: We have no change to report in the lode in the engine-shaft sinking below the 85 since our last advise. In the 85 west the horse is wearing out, and the south part on which we have been driving will shortly fall in with the north part; this latter has made the branch or ore in the western end of the winze, and we feel almost convinced that it will have a similar effect at the 85. The lode in the stope above this level is producing 3 tons of ore to the fathom, with some good work for tin. The lode in the 75 east is from 15 to 18 inches wide, consisting of quartz, and producing good stones of yellow ore. This is a well-defined lode and letting out pretty much water; therefore we have a good opinion that it will lead to something. The ground in the 75 cross-cut north is without any alteration. The lode in the stope below the 75, west of the winze, is worth for copper and tin 20*l.* per fathom. All the other places as before reported.

EAST WHEAL GRYLLS.—Edward Rogers, Edmund Rogers, May 24: Middle Lode: At the 27, driving east of Firmstone's shaft, the lode is 3 feet wide, producing tinstone of a low quality. At the 15, driving west of Curtis's shaft, the lode in 2¼ ft. wide, worth 4*l.* per fathom. In the winze sinking below the 7 the lode is 2 ft. wide, worth 6*l.* per fathom. We expect to effect a communication here in a few days with the end driving west at the 15, which will enable us to set a stope at this level. In the stope in bottom of the 7 west the lode is worth 5*l.* per fathom. In the stope in the back of this level the lode is worth 6*l.* per fathom; in the stope in bottom of this level east the lode is worth 8*l.* per fm.—Fisher's Lode: In the winze sinking below the 10, west of Thomas's shaft, the lode is 3¼ feet wide, worth 10*l.* per fathom.

EAST WHEAL LOVELL.—R. Quentrall, May 23: The mine is just the same as reported at the meeting last week.

EAST WHEAL RUSSELL.—J. Goldsworthy, May 23: At Homersham's shaft, sinking below the 140, the ground continues favourable; fair progress is being made. In the 140, east of Homersham's shaft, the ground in the cross-cut driving north has a little improved; better progress is being made in driving this week. In the winze sinking below the 130, on the south part of the lode, the lode is 3 ft. wide, composed of capel, quartz, prian, mundic, and produces stones of yellow copper ore. The stope in the back of the 130, west of Barkell's rise, is worth 16*l.* per fm. The stope east of Barkell's rise is worth 12*l.* per fm. The stope west of Barkell's winze is worth 16*l.* per fm. The rise in back of the 130, east of Barkell's winze, is worth 14*l.* per fm. There is no other change to notice.

— J. Richards, May 24: Homersham's shaft is in regular course of sinking below the 140 in favourable ground, and fair progress is being made. In the cross-cut north at the 140, east of Homersham's shaft, the ground is improved, and better progress is being made. In Nicholl's winze, sinking below the 130 east, on the south part of the lode, the lode is 3 ft. wide, consisting of mundic, quartz, capel, prian, and good stones of ore. In the stope in back of the 130, east of Homersham's shaft, west of Barkell's rise, the lode is worth 15*l.* per fm. The lode in the stope in back of the 130, east of Homersham's shaft, and east of Barkell's rise, is worth 12*l.* per fm. In the stope in back of the 130, east of Homersham's shaft, west of Barkell's winze, the lode is worth 16*l.* per fm. In William's rise, in back of the 130, east of Homersham's shaft, the lode is worth 14*l.* per fm.

EAST WHEAL TOLGUS.—May 23: In the 34, east of John's shaft, and east of the cross-cut, on the new lode, the part that is being carried is 3½ to 4 ft. wide, consisting of spar, mundic, blende, peach, and capel, with spots of ore. In the same level, driving west of the cross-cut, we are carrying the lode 4 ft. wide, which is similar in character and appearance to the lode in the level driving east; both levels are letting out a quantity of water; it is a strong masterly lode. In the adit level cross-cut, driving south in the new ground, the ground is easy for spending.

FURSDON.—J. Collins, May 23: The ground at the engine-shaft remains hard, and progress slow. The men have been squaring down the ends and side of the shaft, consequently there has not been much done to sinking this week. The end in the 31 west is very hard, and not carrying so much quartz, and very spare for driving; the end is 29 fms. 3 ft. west of shaft. I believe we should now commence a cross-cut north, close to the hard ground, and carry a portion of it; I think we can drive it at 55*s.* per month, or 3*l.* per fm. The end in the 11 east is being driven 6 ft. east of cross-cut; the ground is harder, and letting out much water. We have a branch of mundic and ore in the end 6 in. wide, and carrying a strong capel—it appears like the begginning of a good lode, though not of much value as yet. The stope in back of the 11 east is looking promising for future results—lode of the same value as before. We have put off the sampling until another month.

GAWTON COPPER.—G. Rowe, May 19: The ground in the 60 cross-cut north, driving towards the lode, is of a good description, and is being pushed on with a full pare of men with all possible vigour. There is no particular change in the character of the lode either in the 50 east or west since last reported on. The lode in the rise in back of the 50 west is worth from 4 to 5 tons of ore per fm. The lode in the 40 west is worth from 3 to 4 tons of ore per fm. The lode in the rise in back of the 40 west is worth 5 tons of ore per fathom. The lode in the winze sinking below the 36 is worth 3 tons of ore per fathom. The part of lode being carried in the 50, west from old sump, is 3 ft. wide, and yielding 1 ton of ore per fm., and the ground easy for progress; this point is being pushed on by a full pare of men. The very favourable weather and long days have greatly facilitated our operations at surface in getting up whim-chains and pullies, erecting poppet-heads, raising collar of shaft, &c., which is now, with steam-whim, in first-rate working condition. Our next important work will be to complete the erection of the crusher, and connect the second boiler to the pumping-engine, which will be done with all possible dispatch.

GODOLPHIN HILL.—J. Pope, jun., May 22: Our tributers are working very regularly, and getting fair wages. I have let an extra pitch to two men this morning, and when the water goes down a little lower I have no doubt of being able to set several more. I shall be glad to be instructed to recommence the driving of the deep adit, as that end is now fast approaching our main and best tin ground.

GREAT BRIGAN.—J. Tredinnick, May 23: The lode has not been taken down in either of the stopes during the past week.

GREAT CARADON.—T. Taylor, May 19: The men are sinking as fast as we can expect; the ground is a little harder, but we hope it is only a slight floor. We are making all time in the shaft.

GREAT DEVON AND BEDFORD.—W. Skewis, J. Richards, May 24: The lode in the 40, west of engine-shaft, is split into two parts: this, in all probability, is occasioned by the cross-course, which is but a short distance from the end; each part is about 6 inches wide, of much the same character as stated in the last report. The Orchard lode, near the farmhouse, is 1 foot wide, of the highest description for the production of copper ore, being composed of mundic, gossan, quartz, and black and yellow copper; the men are still employed shoading here for the purpose of finding the Colcharton lode, which we calculate to do in a few days. We have sunk a pit on what we believe to be the Bedford lode about 4 fathoms, in which it is from 4 to 5 feet wide, composed of spar, gossan, mundic, and spotted with copper ore. This shows that the 40 cross-cut and other work recommended should have been continued, and cannot now be resumed too quickly.

GREAT NORTH DOWNS.—T. Rich, M. Jenkin, May 23: We have cut through the lode in the 70, west of Sleggan's shaft, and have resumed the drivage on its course; the lode is improving, and worth 6*l.* per fm. The 60 west is looking better, now worth 8*l.* per fathom. There is more water than usual coming from the 70 cross-cut north; the ground is easier, and intermixed with small branches of copper ore. The water in Sleggan's shaft has sunk about 3 ft. during the past week. We are pushing on the work at Butler's shaft and the new buildings on Sleggan's shaft.

GREAT SOUTH CHIVERTON.—J. Nancarrow, J. George, May 21: We have commenced driving east at the 20; the lode is larger, contains lead and copper, and rich stones of blende, but we have not yet cut down the water in the shaft, though it is draining a little. The west end has not been driven since last reported. The cross-cut is continued north, and we continue to intersect branches with spots of lead and copper.

GREAT SOUTH TOLGUS.—John Daw, May 23: In the 166, east of Lyle's shaft, the lode is 2 ft. wide, producing 1 ton of ore per fathom. In the 154, east of new shaft, the lode is 1 ft. wide, producing good stones of ore. In the winze sinking below this level the lode is 2 ft. wide, producing 1½ ton of ore per fathom. In the 140 east the lode is 1 ft. wide, but it is disordered by the cross-course. We sampled to-day 123 tons of copper ore.

GREAT WHEAL BADDERN.—Richard Pryor, H. Tregoning, May 19: We have to-day set the 75 cross-cut to drive south of Hill Brothers engine-shaft, by six men, at 13*l.* per fm.; the end is still in the elvan course, and letting out an increasing quantity of water. The 63 cross-cut to drive south of the shaft, by four men, at 11*l.* per fathom. We have to-day met with a little elvan in this end, which indicates that the main elvan course is very near. Our pay and setting went off well.

GREAT WHEAL BUSY.—Wm. Rich, J. Tredinnick, C. Bawden, May 19: In the 130 end, east of Offord's shaft, the lode is divided into two parts by a patch of killas, but looks likely to unite again in a fathom or two further east; the north part of the lode is yielding good stones of copper, with an abundance of strong kindly mundic. The stopes east and west of winze below the 120 will produce 5 tons of copper each per fm. The 110, east of Offord's, on south part of lode, is looking very promising for improvement. The rise in back of the 110, on south branch, is worth 8*l.* per fathom for copper. The cross-cut south at the 100, under Rawling's shaft, is letting out more water than usual, but no lode yet intersected. A new winze set last survey-day in back of the 90, west of Fielding's shaft, will yield 8 tons of ore per fathom. Two stopes near Walker's shaft at the 100 are worth 10*l.* per fm. each. The winze on the south lode below the 90, west of Walker's, is worth 10*l.* per fm. The 90 end, east of Walker's, is yielding good stones of tin. We have completed fixing the water-pipes from Wheal Daniel to the reservoirs, and have set the engine to pump water for condensing and dressing purposes. We fully intended to have sunk Grant's shaft at Wheal Daniel below the adit, and thereby prove the lode in this part of the mine deeper, believing it to be a good speculation, but the present depressed state of the metal market compels us to hesitate before putting on any new and speculative works.

GREAT WHEAL GRYLLS.—Edward Rogers, Edmund Rogers, May 24: Kendall's Lode: At the 12, driving west, the lode is 2 ft. wide, unproductive. In our tribute department there is no alteration; the men are earning wages at their respective tributes. Our sale of 127 bushels of tinstone on the 11th inst. realised 32*l.* 5*s.*

GWYDYR PARK CONSOLS.—W. Smyth, May 22: Since the last general meeting we have driven Gwyn Lliflon adit 5 fms. 1 ft. 3 in.; about 8 ft. behind the present end we cut a north and south lode, about 2 ft. wide, composed of spar, mundic, blende, and spots of lead ore, and letting out water freely; this heaved the east and west lode we were driving on, so that we have not since found it; the men are now employed opening both ways on this north and south lode, to see if we can find the other, as it is no use for us to continue this end without it. Since we cut this north and south lode the water has been gradually draining from the shaft we sunk last summer on Owen's and the east and west lodes, and also from the old workings on Owen's, which I consider a good feature, as it shows there is open ground before us; it will also be a great advantage to have the water lessened for the future sinking of the shaft; this ought to be sunk as soon as possible for ventilation, and to open the ground, as the adit end must be nearly under it by this time. The operations at Gwydyr have been suspended since the last general meeting.

HALLENBEAGLE.—William Bawden, May 19: Pinniger's sumpmen are engaged driving a cross-cut south of shaft, to see the south or Wheal Rose lode. In the 56, west of said shaft, the lode in the end has not been taken down for the past week. In the 56, east of Pinniger's shaft, on the north lode, the lode is 20 inches wide, worth 12*l.* per fathom, with a kindly appearance. In the 56 cross-cut, south-east of said shaft, the present end is in favourable strata of ground, and from its appearance I expect shortly to see the south lode. Reed's shaftmen are engaged sinking the shaft below the 53. In the past week we have changed the bottom lift, by so doing we shall make better progress sinking. The lode has not been taken down as yet. In the 53, west of Reed's shaft, the lode is 15 inches wide, worth 7*l.* per fathom. In the 53, east of said shaft, the lode is 18 inches wide, worth 4*l.* per fathom. In No. 1 winze, sinking below the 43, west of Reed's shaft, the lode is 9 inches wide, worth 4*l.* per fathom. No. 2 winze, west of said shaft, worth 5*l.* per fathom. At Roberts's shaft, sinking below the 43, the lode is 9 inches wide, worth 3*l.* per fathom. In the 33 end, west of said shaft, the lode at present is small, containing spots of ore. In the 43, east of Bawden's shaft, the lode is 6 inches wide, producing good stones of copper ore. The 43 end, east and west of cross-course, is as last reported. Our machinery is working well.

HARWOOD.—J. Race, May 18: At Scar Head stope No. 2 is as last reported, worth 1¼ ton of lead ore per fm. Stope No. 3 is poorer to-day, worth 2 tons of ore per fm. I intend to set two new men on Monday to drive west in the north string. The end of the level east in Trough vein is poor, worth about 4 cwts. of ore per fm. The cross-cut from Lock's level is hard. I have let the cutting of all the water-race.

HAWKMOOR.—J. Richards, May 22: The lode in the stopes in back of the 30, east of eastern engine-shaft, is worth 1½ ton of copper ore per fathom.—West Hawkmoor: The stopes in back of the adit level, west of main cross-course, on No. 4 lode, produce some good tin ore occasionally. In the cross-cut south, on the east side of cross-course, the ground is very easy for progress. We hope to sample on Friday next about 22 tons of copper ore.

HINGSTON DOWN CONSOLS.—T. Richards, May 23: Bailey's engine-shaft, sinking below the 130, is without any material change. The stopes in the back of the 130 west are worth 45*l.* per fm. The stopes in the back and bottom of the 120 are worth, on the average, 30*l.* per fm. There is nothing new in any other part of the mine.

LANIVET.—J. Tregay, May 19: The ground in the adit end is still favourable for driving, and good progress has been made, but we have not yet intersected the lode.

LEAWOOD.—John Daw, May 24: The engine-shaft will be sunk the required depth for a 40 fm. level in a fortnight from this time, when no time will be lost in cross-cutting to the lead lode, which is a very important point. In the 30 south the lode is 5 ft. wide, composed of quartz, white iron, and mundic—a very kindly lode, very much like the old Wheal Betsey lode. In the 19 north there is no change to notice.

LONG RAKE.—F. Evans, May 24: The continued breakages which occur, consequent on the fast working of our engine, prevent us from doing much in the bottom levels of the mine. In the 90 nothing is being done. The 80 east is still in a large productive lode, worth 15*l.* per fm., and at times much more. The stopes behind this level produce a large quantity of lead stuff, being worth about 18 cwts. of lead ore per fathom. The lode at the middle shaft, below the 60, will produce 1¼ ton per fm., and is in a splendid run of ore ground. In the 60 east the lode is over 1½ ft. wide, and promising for lead ore. The east shaft is being sunk on this level, the lode producing good orey stuff; after this is communicated we shall be in good trim for driving new levels into the eastern ground. The tribute pitches are as usual.

MAUDLIN.—J. Tregay, May 19: Old Mine: In the 80 west end the lode is very large, composed principally of mundic, with good stones of copper ore.—West Mine: In the 20 west end nothing new since last report.

MINERA UNION.—W. T. Harris, May 25: Douglas's Shaft: The sinking is progressing satisfactorily; the ground has undergone a change from soft chert into shale; the water keeps about the same.—Brabner's Shaft: The lode in the 80 yard level yields a little lead. The lode in the middle level is 1 foot wide, containing occasional stones of lead. The ground in the cross-cut to the red vein is very hard, consequently progress is slow; the pitch in back of this level the same as for some time past, worth 15 cwts. of lead per fathom. The ground in the big cross-cut consists of limestone.—William's Shaft: The lode in the winze sinking below the 60 yard level is worth 1 ton of lead per fm., and very promising. No alteration in any other portion of the mine.

MOLLAND.—T. Bennetts, May 23: In the 72 east we have a promising lode 2 feet wide, composed of grey ore, quartz, and red iron, though not producing quite so much ore as last reported, it being rather disordered at present by some small cross branches of quartz and gossan dropping into it from the country, which was the case when we first entered the ore ground in the level above, and under which we are entering in our bottom level; the men are now engaged in fixing ladder-road in the winze between both levels. The lode in the stopes in the back of the 62 east is 7 ft. wide, producing 1 ton of ore per fathom. The stopes in the bottom of the 32 east, on the north part, are looking a little better than last week. There is a good stone of ore going away under some old workings, consequently the men are now engaged in spilling through the deads to get in to work the ore, and which, I hope, they will accomplish this week.

NEW CROW HILL.—W. Trelease, May 22: The 70 east has been driven since the last meeting 9 fms. 1 ft. 10 in., on a lode varying in width from 1 ft. to 4 ft., which has occasionally produced excellent specimens of lead, although nothing regular, and the present end is so extremely heavy that no timber we can put in will stand to keep the level abroad. We are cross-cutting south to see if any lode has gone off, and we have met with some branches of mundic, intermixed with lead ore, though not to value. In the old stopes in the back of the 55 the ground removed since the last meeting is about 38 fms., and we have had for the whole of the time a fine-looking lode, still worth in places 40*l.* per fm., and is a magnificent-looking lode. In the new stopes in the back of the 55 (east of old) we have stoped about 21 fms., and the lode has a good appearance throughout, and worth in places from 4 to 6 cwts. of lead ore per fm. The 35 has been driven about 3 fms., and is producing good stones of ore. Louisa shaft has been sunk 2 fms. 4 ft. 9 in. since the last meeting, through a hard lode, including the capels, &c. The lode has produced some beautiful specimens of lead ore. The orey part is about 3 ft. wide, but it has now left the shaft by its underlie. I calculate to raise this month 200*l.* worth of ore, but the dry weather is beginning to act on our surface water.

NEW EAST RUSSELL.—J. Gifford, May 22: We have communicated the rise in the 20 west with the deep adit, which has given good ventilation to both levels. On Saturday last we set the 20 west to drive by six men, stent the month, at 3*l.* 15*s.* per fathom and 10*s.* tribute. A pitch in back of the 20, west of Bastow's rise, by two men, for two months, at 10*s.* tribute. A pitch in back of the deep adit, by two men, at 14*s.* tribute. The drawing of all the water in the mine at 40*s.* per week, and 5*s.* per 100 kibbles of stuff.

NEW TRELAWNY.—E. H. Dingle, May 23: In the adit level driving west little has been done during the past fortnight, as the men have been employed at surface assisting the carpenter to erect the horse-whim and other work, consequently we have no change to note in the end. We have completed the main shaft 9 fms. from surface, and it is now in regular course of sinking, by nine men, at 7*l.* per fm., 12 feet long and 6 feet wide; here a very great improvement has taken place in the lode, with every appearance of a further improvement, it being 3 ft. 6 in. wide, of the most promising appearance, composed of gossan and prian, carrying a solid leader 1 ft. 6 in. wide, composed of mundic, copper, and silver, altogether a lode of great promise, such as to warrant the most sanguine expectations as to its proving a rich lode at a shallow depth. We intend to push this shaft so as to gain the depth of the adit level, which we calculate will be 16 fms. from surface, and then open out on the course of the lode, where, from the nature of the lode now to be seen in the shaft, we hope to find something good.

NEW TRELEIGH.—S. Michell, May 23: We have in the last few days met with a lode 4 feet wide in the 89, driving west; the appearance of the lode is very encouraging. We are rising by the side of the lode in back of the 70, in order to make greater dispatch, the lode being very wet and troublesome, but orey. The 60 end is still producing over 2 tons of ore per fm., and the ground moderate for driving. The ground in the cross-cut in the 70 is become more speedy, and discharging more water, which is indicating the lode not to be far off. The lode in the 51, driving east of the new shaft, will turn out over 1 ton of ore per fm.; the western end will turn out 1¼ ton per fm. We have opened up over 4 fms. of ground in this level, cut plat, and are now making preparations for sinking the shaft below this level.

NEW WHEAL LOVELL.—J. Priske, May 24: We commenced to drive east and west at the bottom (42 fms.) on Friday last. The lode in each end is as good for tin as at the bottom of the shaft; it is 3 ft. wide, and will average about 6*s.* per sack, at 50*l.* per ton. We shall resume sinking at the earliest practicable moment.

NEW WHEAL TOWAN.—Richard Pryor, May 23: No particular change has taken place in this mine worthy of notice during the past week.

NORTH DEVON.—J. Blamey, May 23: The 10 north, on the caunter, is without alteration. The 10, south from the caunter, contains branches of spar, with spots of lead and copper. In the 20, south of the engine-shaft, the men are driving east on new south lode; this is a strong lode, and we save a great part of it, but it is coarse work, with occasional stones of good lead, and the ground is hard. The men have finished the stope below the 10, on the caunter, and I have set them to drive east in the 10 fm. level.

NORTH DOLCOATH.—J. Paull, May 23: The lode in the engine-shaft is much the same as last reported, with more water issuing from it than heretofore, which we do not dislike to see, being sometimes a good indication of a further improvement.

NORTH DOWNS.—F. Pryor, J. Grenfell, May 22: Setting Report: A cross-cut to drive north of King's shaft at the 95 by six men, at 10*l.* 10*s.* per fm., 1 fm., or cut the lode. Also a cross-cut to drive south of this shaft at the 50 by three men and three boys, at 4*l.* 10*s.* per fm., 3 fms., or cut the lode. A rise in the back of the 50, on the south lode, by two men, at 8

mineral, and we have 1 fathom more to sink to reach the 70, when no time will be lost in cross-cutting to see the lode. A rise in the back of the 60, east of this shaft, by two men, at 5*l.* per fm., producing stones of ore. No tribute setting this month.

NORTH MINERA.—A. Thomas, May 23: There is more water issuing from the drivage at the 50 fm. level cross-cut, which is a strong indication of the expected lode being just ahead of us; letting down the water through the strata. Beyond this, I have no change to report in this level. The tribute pitch in back of the 25 west is fast improving, and I am of opinion that a considerable quantity of ore is yet standing in this part of the mine. The present yield is 1¼ ton of lead ore per fathom.

NORTH PHŒNIX.—J. Seccombe, J. Martin, May 18: Setting Report: The 160 to drive west on the south side of the lode, by six men, at 15*l.* per fm.; the ground is a mixture of killas and capel, spotted with mundic. The 140 to drive west in the killas on the south side of the lode, by six men, at 8*l.* per fm.; the ground still continues favourable for driving. To strip down the lode on the north side of the rise in back of the 140 west, by two men, a bargain, at 4*l.*; the wall of the lode has a good appearance, and the killas contains small branches of yellow copper ores, which we consider a good indication.

NORTH SHEPHERDS.—H. Bennetts, May 23: The lode in the 40, west of engine-shaft, is of the same size and character as reported last week. The lode in the 30, west of engine-shaft, is 1 ft. wide, with good stones of lead, but not enough to value. In the 20, west of Rye's shaft, the lode is a little improved, and of a promising character. Rye's shaft is sunk 2½ fms. below the 20, and in a good channel of ground for the production of lead. No change in any other part of the mine to notice.

NORTH TRESKERBY.—R. Pryor, J. Tregoning, T. Jenkin, May 24: The lode in the engine-shaft, sinking below the 110, is 4 feet wide, producing stones of ore. The lode in the 120, east of Tresidder's shaft, is 4 ft. wide, composed of mundic, peach, and spar, with good stones of copper. The end at present is letting out a quantity of water, and an important discovery may shortly be expected at this point, as the end is now near the course of ore met with in the level above. The lode in this level, west of shaft, is of much the same character as that in the eastern end. The lode in the 110, east of shaft, has improved, and now produces 1¼ ton of copper ore per fathom. All other places are without change to notice since our last report.

NORTH WHEAL BASSET.—W. Roberts, May 23: Main Lode: In the 122, west of Grace's shaft, the lode is 5 ft. wide, producing stamping work for tin; in the same level east the lode is 5 ft. wide, all saving work for tin. In the 52, west of the western shaft, the lode is 3½ ft. wide, worth 6*l.* per fm. for tin.—North Lode: In the winze sinking under the 42, west of cross-cut, the lode is 1½ ft. wide, producing for the length of winze (9 ft.) 2 tons of ore per fathom. In 42 east no lode has been taken down since setting-day. In the winze sinking under the 32 the lode is 1 ft. wide, producing good stones of ore. In other parts there is no alteration to notice.

OLD GUNNISLAKE.—James Phillips, May 24: During the past week the shaftmen have been engaged in timbering and securing Michael's shaft between the 51 and 61, and also in clearing and securing the cross-cut in the 61, which we hope to complete, and to be enabled to go on the course of the lodes, in a few days. We are looking quite as well in the 31 and 21 west for tin as when last reported on, and we are clearing those levels west with all speed, so as to communicate with Williams's shaft. Parker's shaft is sinking by the side of the lode, which we shall take down in time for next week's report. We will then advise you of its size and character. We are driving by the side of the lode in the 31, west of Parker's shaft. In consequence of the burning-house and dressing-floors at Wheal Arthur, which is the only place we can get, being so much out of repair, and having had so much to do to it before we could commence burning or doing anything, we have not yet sent away the samples of tin to the smeiters as we purposed, but intend doing so to-day.

PENHALE AND LOMAX.—John Kitto, James Brown, C. Rosewarne, May 24: Yesterday we sent down another pump; we shall quickly reach the first level below adit. We hope to complete the steam-whim and capstan in three weeks. We are busy fixing the wheel for condensing water. All the pipes are on the mine. A cargo of coals has been landed at the canal, and is being delivered on the mines.

PENHALE WHEAL VOR.—W. Chappell, W. H. Martin, J. Richards, May 24: At the bottom of Hollingsworth's engine-shaft we have commenced driving the cross-cut north to cut a lode running parallel with that of Parkwarrah lode. We have also pares of men in the 74 and 64 driving on course of the lode east and west of shaft, where the lode is large and producing tin, but as we have only just commenced it will take some few days to show the lode, so as to speak of its component parts and future prospects. We have cleared, secured, and fixed pitwork in Battye's shaft to the bottom, which is 64 fathoms below adit, and commenced to drive east on the course of the lode, which is 2 feet wide, and producing some rich stones of tin. We have a pare of men clearing the 64, east of Sanford's shaft, which will take about three or four days more to clear into the present end. We have cut Hallaballie's cross-course in the 34, east of Sanford's, which for the present has thrown the lode out of its regular bearing, but have no doubt this will only be temporary, and to the east of which we look forward to a rich course of tin similar to what Great Wheal Vor had to the east of same cross-course on a parallel lode and joining setts. We are making the necessary preparations for fixing pitwork, so as to draw the water out of Sanford's shaft, which is sunk to the 74 under adit, and about 70 east of Battye's shaft. We also purpose sinking Gutieriez's shaft and driving the 26 west, under where the former workers have sunk in bottom of the 16 as deep as they could go on account of the water. We intend setting a cross-cut to drive south from the 54, east of Battye's shaft, which will cut three other lodes running parallel with Parkwarrah lode, all within a distance of 20 fathoms. There is no change in our tribute department. We intend selling sufficient tin to meet the labour pay due June 29.

PENTRE LYGAN.—F. Evans, May 24: We have been to no litt'e trouble and expense in fixing a small lift at the 48 sufficient to lift the water from that depth, and enable us to drive that level westward without let or hindrance, which we shall now do, and consider our prospects for lead ore going in the direction to be most encouraging.

REDMOOR.—T. Taylor, May 21: During the past month we have driven east to the cross-course, which is about 6 feet wide, containing a deal of mundic, mixed with prian, flookan, and spar. We are now driving south on the eastern side, by four men; the ground is rather stiff for driving, considering we are obliged to close timber it—set to four men, at 4*l.* 10s. per fathom. In the drivage west of the shaft we intersected a caunter lode, about 2 ft. wide; this is not the lode we had in the 40 fm. level plat; we intend to open on it a few feet just to prove its run and character. Two men are engaged breaking mundic at a high tribute in the 52 fm. level. The machinery, &c., is working well.

ROARING WATER.—H. Thomas, May 22: The progress in sinking Gilliman's engine-shaft is satisfactory—the ground is without change since last reported on. The lode at Grady's engine-shaft is producing good saving work, with every appearance of soon becoming rich; the indications are of great promise for large quantities of rich mineral. As soon as the lode is more fully developed a considerable amount of ore will be raised. The development of this lode is quite answering my expectations.

ROSECLIFF AND TOLCARNE.—R. Pryor, J. Phillips, May 23: At Lindo's engine-shaft, sinking below the 30, the ground continues favourable, and the men making good progress. The lode in the 30, east of shaft, on No. 1 lode, is 2½ ft. wide, composed of mundic, prian, spar, and stones of lead, with a good appearance. The ground in the 30 cross-cut has become a little more favourable for driving, and water oozing therefrom.—Caunter Lode: This lode has not as yet intersected No. 2 lode, but we think we are not far from it. Our engine continues to work well.

ROSEWARNE CONSOLS.—J. Nancarrow, R. Knuckey, May 22: There has been no lode taken down in Ellen's shaft since last report. The 90 east yields good stones of yellow ore, and is likely to improve shortly. The 80 east yields ore to save. The 70 east is worth 4*l.* per fm. The east stope in the back of the 70 is worth 10*l.* per fathom. The west stope is worth 5*l.* per fm. The rise above the 80, west of sump, is up 10 ft., in a very promising lode, yielding stones of ore. The lode in the 40 west is 1½ ft. wide, but does not contain anything to value. The pitches look just as when they were set. We have sampled to-day 46 tons of ore, of better quality than the last.

SILVER VEIN.—James Seccombe, Edwin Burn, May 21: During the past month the engine-shaft has been sunk 4 fms. 1 ft., and the ground continues very favourable; the lode yields stones of fahlerz, and has a very promising appearance. We are pushing on the sinking as rapidly as possible, and if no important change takes places in the ground we shall soon reach the 70. The machinery is in good order, and works well.

SHROPSHIRE.—J. Kitto, May 21: In cutting down the engine-shaft below the adit level the lode has somewhat improved, now 3 ft. wide, and yielding some good stones of copper ore. The sump sinking below the adit, west of cross-cut, is still looking well, and worth full 2 tons of rich copper ore per fm. The sump sinking below the adit, east of cross-cut, on same lode, has improved since last reported, and is now from 3 to 4 feet wide, and worth 1¼ ton of copper ore per fm. In driving east towards the junction, at the bottom of the new trial shaft, we have recently met with a little copper, but so far not of sufficient importance to value; I expect a further improvement here very shortly. We are clearing out foundation for engine-house, and hope to get the places for the buildings in a few days, when we shall at once procure tenders for the necessary erections. The office, store-room, smithy, and other buildings named in my last report are all satisfactorily completed. We have about 20 tons of good ore already dressed, besides several tons more broken, and I have no hesitation in saying that by the time the crusher can be erected, with all the force that can be brought to bear upon it, we shall have at least 50 tons of ore ready for market.

SORTRIDGE CONSOLS.—Robert Jackson, May 24: In the 122 cross-cut, north of Hichins's engine-shaft, the ground is favourable for driving, and good progress has been made. In the 110, west of Hitchins's engine-shaft, the lode is 3 ft. wide, composed of spar, capel, mundic, and good stones of ore. In the 110, east of Hitchins's engine-shaft, the lode is 2 ft. wide, producing some good saving work.

SOUTH CONDURROW.—J. Vivian and Son, Wm. Williams, May 19: The engine-shaft sumpmen are actively engaged with the pitman in putting the bobs and rods in their places at the engine and King's shafts, and in the 40; in little more than a week we expect to have these appliances at work.—West Basset Lode: King's shaft has been sunk 11 fms. 3 ft. below the 40, the shaft cased and divided, and ladder-road and skip-road fixed in it. We have not yet cut through the lode, which owing to a change in its underlie is standing entirely south of the shaft; we have, however, stripped down a portion of the north part of it without yet coming to any signs of a south wall, from which we think it has increased in size, and it is of a highly favourable character, being composed of vughy quartz, with grey and black copper ore scattered throughout it. We think the lode has undergone a very favourable change in its character in the last 2 or 3 fathoms sunk, and should we meet with a course of copper ore on commencing to drive the 51, east and west, we should have more confidence in its permanency than in any discovery we have yet made; we have to-day set the sumpmen to cut through the lode, and to drive the 51 fm. level 3 fms. east, and the same distance west, when the cut being sufficiently distant from the shaft we shall at once commence sinking below the 51; this, we think, will be in a month. In the 40, west of King's shaft, the lode is about 1¼ ft. wide, and is passing through soft decomposed ground, completely saturated with, and letting out, a large stream of water. We still think that we shall meet with ore ground as we get further west at this level. In the 30 west the lode is at present in two parts or branches, both small, but the south part appears to jbe improving, and is producing a little copper ore. In the 20 west the lode is 1½ ft. wide, composed of ferruginous quartz, with some patches of ore occurring occasionally. The rise in the back of the 20, against Vivian's shaft, has not yet drained the shaft, but the water is going down, being now within 2 fms. of the bottom. As we anticipate being able to communicate Vivian's shaft to the 20 in a day or two, we have let the copper ground in the back of the 20, east of the said shaft, to stope. In the 20, east of King's shaft, the lode is at present small, being in harder rock than usual, which, however, we think is only a short neck.—Middle Lode: In the 30, east of engine-shaft cross-cut, we are driving north to intersect the north part of the lode, and expect to meet with it in a distance of about 2 fms. In the 20 east the lode is 1¼ ft. wide, producing tin, which will pay, together with a little copper ore of good quality. In the 10 east the lode is 2 ft. wide, and producing tin, worth about 6*l.* per fm.; price for driving 1*l.* 15s. per fm.

SOUTH DOLCOATH.—W. Roberts, May 23: In the 56, driving east, the lode continues 1¼ ft. wide, composed of fluor-spar and stones of good ore. The driving of the 56 cross-cut progresses favourably. In the 46 east the lode is small; in the 46 west the lode is 1¼ ft. wide, producing 1 ton of ore per fm. We have sampled this morning (computed) 16 tons of ore.

SOUTH HERODSFOOT.—Wm. Goldsworthy, May 23: In the 70 south the lode is 2 feet wide, producing spar, copper, mundic, and spots of lead occasionally, but not to value; the ground by the lode is a pretty blue killas, and very congenial for mineral. The 70 south to drive by two men, at 4*l.* 10s. per fathom; the lode is 1 ft. 6 in. wide, producing spar and spots of mundic. The engine and machinery is in good order, and keeping the water comfortably.

SOUTH TREVENNA.—T. Jennings, May 24: No. 1 lode, sinking under the 10, west of shaft, is just at last reported, 2 feet wide, worth 8*l.* per fathom for tin. The lode in the end east is 1 foot 6 inches wide, worth 6*l.* per fathom. No. 2 lode in the rise, in back of the 25, is 5 feet wide, worth 12*l.* per fathom. The lode in the winze sinking under the adit level is 4 feet wide, worth 10*l.* per fathom. The ground in the cross-cut to cut No. 3 is quite mineralised. We expect to cut the lode in a few fathoms. Mr. Edwin H. Wadge has paid me another visit, and thoroughly inspected the mine. I have every reason to believe he will give a full report of this mine in his circular.

SOUTH WHEAL GRENVILLE.—G. R. Odgers, W. Bennetts, May 19: The lode in the engine-shaft, sinking below the adit, is about 1 ft. wide, of quartz and prian, the ground by the side of the lode being elvan, and we are pushing down the shaft as fast as possible.

ST. IVES WHEAL ALLEN.—J. Nancarrow, J. Daniel, May 23: Roderick's engine-shaft is down nearly 4 fms. below the 50 fm. level, and the men are making fair progress in sinking; the lode is small, but yields a little tin. The lode in the 50 end east is worth 5*l.* per fm. The stope in the back of the 50 east is worth 6*l.* per fm. The lode in the 40 east is smaller than last week, but yields tin to save, and is letting out more water than usual, which is a good indication. The stopes in the back of the 40 east is worth 4*l.* per fm. There are two pitches working on tribute, which look just as they did at the setting.

ST. JUST CONSOLS.—J. Carthew, W. Williams, May 22: Our work in these mines is proceeding as reported last week. No change to notice.

ST. JUST UNITED.—G. Pryor, W. R. Rutter, May 22: Buck Lode: The lode in the 62, east of Red Dipper shaft, is worth 7*l.* per fm.—Owl Lode: The lode in the 20, north of winze, is worth 9*l.* per fm. The lode in the 10 north is producing good stones of tin. The lode in the deep adit north is worth 12*l.* per fm. In the winze sinking below this level the lode is worth 10*l.* per fm. The lode in the shallow adit level north is worth 5*l.* The skip-road will be completed to the 76 by the middle part of next week. All other places without much change to notice since last report.

STRAY PARK.—C. Thomas and Son, E. Rogers, May 23: The engine-shaft is sunk 7⅛ fms. below the 250; the lode since it has been harder is improving in appearance, and producing rich stones of tin; it is now worth for the length of the shaft (12 ft.) 25*l.* per fm. The 238, west of engine-shaft, is worth for the part driving on 9*l.* per fm. We are continuing one stope in the bottom of the 238, west of shaft, by four men, where the lode is easy for working, and worth 10*l.* per fm.

TOLCARNE.—May 24: Field's Lode: In the 75, east of Field's shaft, we have intersected the cross-course, and are not yet through it. In the 60 east the lode is 2 feet wide, producing ½ ton of ore per fathom, and is promising for improvement. In the 50 east the lode is 2 feet wide, producing stones of ore—a kindly lode. In the 40 east the lode is 20 in. wide, producing good stones of ore. In the 30 east the lode is 15 in. wide, consisting of gossan and soft spar—unproductive. In the adit level south the ground is very wet.—New North Lode: In the 60 east the lode is 15 in. wide, producing stones of ore. In the 60 west the lode is 2 feet wide, consisting of fluor and other spar, with occasional stones of ore. In the 50 west the lode is 18 in. wide, producing good stones of ore.

TRENCROM.—Wm. Arthur, Wm. Rosewarne, May 24: The lode in the 110, east of Hollow's shaft, is 14 in. wide, worth 4*l.* per fm. The lode in the 100, east of Hollow's shaft, is 14 in. wide, worth 3*l.* per fm. The lode in the 90, east of Hollow's shaft, is 2 feet wide, producing a little tin. The lode in the 80, east of Hollow's shaft, is 6 in. wide, producing saving work for tin. The lode in the rise above the 70, against Dawe's shaft, is 9 in. wide—saving work. The lode in the rise above the 60, east of Hollow's shaft, is 12 in. wide, worth 3*l.* per fm.

TREWEATHA.—T. Foote, J. Scoble, May 23: The lode in the 50 south is 3 feet wide, producing 4 cwts. of lead per fathom. The lode in the rise in the back of the 50 north is 2½ feet wide, and will yield 3 cwts. of lead per fathom; the ground being easy we are making good progress in rising. We are pushing on the clearing and securing of the 40, but owing to the timber being broken so badly our progress is slow. The lode in the winze sinking in the bottom of the 40 north is 3 feet wide, producing 5 cwts. of lead per fathom, and good progress is being made. The stopes in the back of the 40 will produce on an average 4 cwts. of lead per fathom. The lode in the 30 south is 3 ft. wide, and favourable for driving, but the lode is poor. The stope in the back of this level will yield 4 cwts. of lead per fathom. The lode in the 20 south is 2½ feet wide, producing 4 cwts. of lead per fathom; the ground in this end still continues favourable for progress. The ground in the 33, north of the footway shaft, is still easy for driving, and good progress is being made. We are getting on with poppet-heads, pulley stands, &c., so as to get the machine to work. We were obliged to draw with the horse-whim a few days longer than we expected, so as to clear the stuff to keep the men to work, or we should have had this completed ere now. The water in the north mine has very much fallen off during the last few days, now about six strokes per minutes. The standing lift at Ward's shaft has been completed in the 53, and sinking-lift sent down below that level 6½ fathoms. The engine is working well, and we hope in a day or two to be able to drop to the 63. We are getting on with the dressing, and will sample a parcel of ore as soon as possible.

VIGRA AND CLOGAU.—J. Remfry, May 24: During the week we have found a few specks of visible gold in the lode under the 5 fm. level, No. 1 shaft, No. 2 mine. In the east driving from No. 3 shaft the lode is 5 ft. wide, with a good footwall. The lode west is 3 feet wide, and slightly mineralised. The east driving from No. 2 shaft is without change; the lode is from 4 to 5 ft. wide. We are still opening out on the lode at surface between Nos. 2 and 3 shafts, and producing occasionally specks of gold. The stopes in No. 1 mine, west from No. 2 shaft, are producing kindly-looking quartz; average width of lode 6 feet. The weather continues very dry, and we have scarcely water to keep four heads of stamps at work.

WALKHAM AND POLDICE.—John Lean, May 24: In the 50 we have intersected the point of the lode on the west side of the lead course; its appearance is very promising, being so near the lead course; at present it is 18 in. wide, a mixture of killas, capel, spar, mundic, and ore, with water increasing; let to four men, at 4*l.* per fathom. In the 38 west a decided improvement has taken place in the character of the lode, the leader part being 3 ft. wide, capel, spar, and mundic, interspersed with copper ore, the lode being altogether 5 ft. wide; I hope to see this shortly a paying lode; let to six men, at 3*l.* 10s. per fm. The 26, west of shaft, is let to six men, at 4*l.* 4s. per fm.; the point of the lode is increasing in size as we proceed, and is promising, it being spar, peach, and mundic, stained with copper ore.

WEST BASSET.—W. Roberts, May 22: I beg to hand you a report of this mine, by beginning with the tutwork bargains set on Friday, May 18.—Thomas's Engine-shaft: Driving the 154 west, on the north lode, by six men, at 4*l.* per fm.; driving the 134 west, on the north lode, by four men, at 4*l.* per fm.; driving the 84 west, on the caunter lode, by four men, at 4*l.* per fm.; driving the 84 east, on the caunter lode, by two men, at 3*l.* 5s. per fm; driving the 78 east, on the caunter lode, by four men, at 6*l.* per fm.; driving the 75 west, on the caunter lode, by two men, at 4*l.* 10s. per fm.; driving the 75 south, on the cross-cut, by four men, at 10*l.* per fm.; driving the 65 west, on the caunter lode, by two men, at 2*l.* per fm.; driving the 65 east, on the middle lode, by four men, at 6*l.* 10s. per fm.; driving the 65 west, on middle lode, by four men, at 10*l.* per fm.; sinking the winze in the 65 west, on the middle lode, by four men, at 8*l.* per fm.; rising in the 52 east, on middle lode, by four men, at 8*l.* per fm.; and sinking the winze in the 42 east, on middle lode, by four men, at 6*l.* per fm.—Grenville's Engine-shaft: To sink below the 144, by nine men, at 45*l.* per fm.; driving the 144 east, on the engine lode, by four men, at 8*l.* per fm.; driving the 144 west, on engine lode, by four men, at 8*l.* 10s. per fm.; driving the 134 east, on the engine lode, by four men, at 5*l.* per fm.; driving the 134 west, on engine lode, by two men, at 7*l.* per fm.; sinking the winze in the 124 west, on the engine lode, by four men, at 7*l.* 10s. per fm.; driving the 104 west, on the engine lode, by four men, at 7*l.* per fm.; driving the 65 west, on the engine lode, by two men, at 4*l.* 10s. per fm.; and driving the adit west, on engine lode, by two men, at 2*l.* 5s. per fm.—North Lode: The 154 is extended 52 fathoms west of Thomas's shaft, the lode throughout varying from 2 to 5 ft. wide, and in places, yielding good stones of ore; in the present end the lode is 3 feet wide, chiefly composed of spar, peach, and capels, with occasional stones of ore. The 134 is driven 19 fms. west of Percy's shaft, the first 10 fms. being very good tribute ground; the last 9 fms. opened have only produced occasional stones of ore. The lode in the end is now 2 feet wide, yielding good stones of ore, and is apparently likely to improve.—Caunter Lode: The 84 is driven 2 fms. west of the point of horse; lode 3 ft. wide, saving work for tin. In the same level, 15 fms. east of the cross-cut, the lode is 3 feet wide, composed of prian, spar, and occasional stones of ore—a very promising lode. The 75 is extended 5 fms. east of the cross-cut; in it the lode is 2 feet wide, presenting a favourable appearance, and sometimes producing stones of good ore. The 75 is also driven 7 fms. west of the cross-cut, where the lode is 2 ft. wide, producing occasional stones of ore, and judging by the ground driven through in the level above an improvement is very soon expected. The 75 cross-cut is only driven 13 ft. south of this lode, leaving about 10 fms. more to drive to reach the middle lode. The 65 is driven 30 fms. west of the cross-cut; in the last 4 fms. the lode has been 1¼ ft. wide, producing 1 ton of good ore per fathom, which is the size and value of the lode in the present end.—Middle Lode: In the 65 fm. level, 22 fms. east of the cross-cut, the lode is 2 ft. wide, composed of gossan and good stones of ore—a promising lode, and such as will, I believe, improve shortly. In the same level, 18 fms. west, the lode is small and unproductive. In the winze sinking under the 65, and down 16 ft., the lode is 2 ft. wide, producing stones of ore. The 52 is extended 70 fms. east of the cross-cut; the lode in the end is 1¼ ft. wide, but nothing in it to value. Immediately behind the end a rise is being put up to communicate with a winze sunk 6 fms. below the 42; when these are holed a good piece of tribute ground will be opened, although the lode in the rise and the winze is at present unproductive.—Engine Lode: Grenville's shaft is 6 fms. below the 144, and is being sunk as fast as the nature of the ground will admit. The 144 is driven 18 fathoms east of the shaft; in the present end the lode is 2½ ft. wide, having a very promising appearance, and producing full 1 ton of good ore per fathom; the same level is 11 fms. west of shaft, where the lode for the last 6 ft. driven has improved, and is 1½ ft. wide, producing good stones of yellow ore. In the 134 fm. level, 21 fathoms east of the cross-cut, the lode is 2 ft. wide, producing good stones of ore, and likely to improve. In the 124 fm. level, 47 fms. west of the shaft, the lode is 2 feet wide, at present unproductive. The same will apply to the lode in the 104 and in the 65, driving west. We calculate to sample to-morrow (Wednesday) about 135 tons of copper ore, and there are 70 tons of tinstuff on the floors, which will soon be sampled and sold. According to present prospects the next ore sampling will I believe be larger, and it is also very satisfactory to see the bottom levels at Grenville's. The 144 east and west, and the 134 east, have improved, and each showing favourable indications for further improvement.

WEST BEAM.—Wm. Hosking, May 24: The lode in the 37 fm. level end, driving west of Union engine-shaft, is now 3 ft. wide; it has considerably improved during the past fortnight, and when last taken down it yielded some very rich work for tin. In the 37 fm. level end, east of Union engine-shaft, we have suspended operations for the present, and set the men to open a new stope in the back of the 10, west of Teague's shaft, where they are raising good paying work. The stope in the back of the 27, west of Union engine-shaft, continues to yield good work, worth quite 8*l.* per fm. The tribute pitch in the back of the 20, east of Union engine-shaft, had improved, and the men are making good wages. The lode in the stope in back of the 20, east of Phillip's shaft, is now worth 6*l.* per fm., and the productive ground lengthening westward. The two stopes in the back of the 10, west of Union shaft, continue their usual yield, and are worth 5*l.* per fm. each. The cross-cut extending south of Brothers engine-shaft, at the adit level, continues in very favourable ground, and is being driven at 2*l.* 15s. per fathom. The tributers engaged breaking copper at the back of the 27, east of Brothers shaft, have again taken down the lode, and find it showing an improving appearance, and the ore, which they have broken, is of a very rich quality.

WEST GREAT WORK.—S. J. Reed, May 23: The flat-rod shaft is now 2 fathoms 4 feet under the 20; the lode is 2½ ft. wide, composed of quartz, mundic, and chloride, and worth 20*l.* per fm. for tin. The lode in the 20 west is 2½ ft. wide, and worth 8*l.* per fm. In the 20 east it is 2 ft. wide, and worth 6*l.* per fm. The stopes in back of this level are worth 9*l.* per fathom. In the 8, driving west, the lode is 18 in. wide, and worth 5*l.* per fm. The winze is communicated to the 20, and another has been commenced 30 fms. west of shaft, where there is a good lode for tin. The sales of tin for this month, although the price is so low, will nearly meet the cost of the mine.

WEST SHARP TOR.—Setting for June, set May 19: The cross-cut to drive south in the 150, west of Morris's shaft, as directed by the agent, by six men; stented the month, or cut through the lode, at 26*l.* per fm.; taken by John Jeffrey and Co. The No. 5 cross-cut to drive north in the 162, west of Morris's shaft, as directed by the agent, by four men, stented 3 feet, or cut through the lode, at 20*l.* per fm.; taken by Thomas Jeffery and Co. The back of the 162 to stope west of the No. 4 cross-cut, as directed by the agent, by four men, stented the month, at 10*l.* per fm.; taken by Gregory Phillips and Co. The back of the 162 to stope east of the No. 4 cross-cut, as directed by the agent, by six men, stented the month, at 14*l.* per fm.; taken by Robert Hawke and Co. The 174 to drive east of the cross-cut, on the south part of the lode, as directed by the agent, by two men, stented the month, at 10*l.* per fm.; taken by William Buckingham and Co. The 174 to drive west of the cross-cut on the south part of the lode, as directed by the agent, by four men, stented the month, at 13*l.* per fm.; taken by Henry Kitt and Co. The 174 cross-cut to drive south, west of Morris's shaft, as directed by the agent, by six men, stented the month, or cut through the capel part of the lode, at 29*l.* per fm.; taken by William Jeffery and Co.

— W. Richards, May 22: The part of the lode now being cut into in the cross-cut in the 150 west produces saving work, it is still further south, where we expect a greater improvement. The lode is not yet cut through in the No. 5 cross-cut in the 162 west; there is no alteration in its character to report at the present time. The stope in the back of the 162, east of the No. 4 cross-cut, yields 25*l.* worth of ore per fm. The stope west of the said cross-course will produce 15*l.* worth of ore per fm. We have not cut through the capel in the cross-cut in the 174 west, consequently there is no change to report here. The part of the lode being carried in the 174 east contains, iron, quartz, capel, and a little rich ore occasionally. The part of the lode being carried in the 174 fm. level west contains iron, peach, capel, quartz, green carbonate of copper, and some rich copper ore.

WEST WHEAL TOLGUS.—May 23: South Lode: In the 85, east of Taylor's engine-shaft, the part of the lode that is being carried is 4 ft. wide, producing from 3 to 4 tons of ore per fathom. In the 85 we are driving south, and from the appearance of the ground, and from its being very wet, we believe we are getting near the main part of the lode. The lode in the 75 west is 4 ft. wide, producing 3 tons of ore per fathom. In the 75 east the part of the lode that is being carried is 4 feet wide, producing 4 tons of ore per fathom. In the sump-winze, sinking under the 75, the lode is 4 ft. wide, producing 2 tons of ore per fathom. We are cutting winze-piat in the 75 fm. level, 12 fms. west of the shaft, preparatory to sinking a winze in the bottom. We have four stopes over the back of the 75, two east and two west, each stope is producing 3 tons of ore per fathom. The lode in the 65 west is 3 ft. wide, producing 2 tons of ore per fathom. The lode in the rise over the back of the 65 is 1 ft. wide, unproductive. The stope over the back of the 65 west is producing 4 tons of ore per fathom. In the 50 west the lode is 1 ft. wide, unproductive. Taylor's sumpmen are getting on with the sinking of Taylor's engine-shaft below the 85 as fast as the nature of the ground will admit of.—North Lode: In the 65, east of Taylor's engine-shaft, and east of the cross-cut, the lode is 18 in. wide, consisting of spar and mundic.

WHEAL AGAR.—W. Roberts, May 13: Windstow Shaft: In the 110 east the lode is 2½ ft. wide, yielding stones of tin occasionally; in the same level west the lode is 3 ft. wide, producing good work for tin, a promising lode.—Western Shaft: In the 90 east the lode is 1¼ ft. wide, producing saving work for tin. The lode in the winze sinking below the 70 is 2½ ft. wide, composed of spar, peach, and low quality tinstuff. —Old Whim-shaft: The sinking of this below the 140 is going on satisfactorily. In the winze sinking under the 130 the lode is 3 ft. wide, of a very promising character, producing good stones of copper ore, and saving work for tin.

WHEAL CREBOR.—J. Gifford, May 22: On Saturday the following bargains and pitches were set:—The 108 east to drive by the side of the lode by six men, stent 4 fms., at 4*l.* per fathom. The cross-cut south, in the 96 west, to drive by four men, stent 2 fms., at 6*l.* per fathom. The 96 east to drive on the course of the lode by four men, stent 3 fms., at 5*l.* per fm.; lode 2 ft. wide, of a promising character, and yielding good stones of copper ore. We expect to communicate the rise in the 84 east with the 72 by the end of this week. Cock's shaft is down 9 fms. below the 108; and we hope to be down to commence the 120 both east and west by the middle of July next. All the filling and landing in the mine for two months, by two men, at 7*l.* 10s. per month. J. Benny's pitch in bottom of the 96 east, by four men for two months, at 8s. in 1*l.*; standard 15s. per produce. No. 1 pitch, in the back of the 84 east, by two men, for two months, at 10s. in 1*l.*; standard 15s. per produce. No 2 pitch, in the back of the 84 east, by four men, for two months, at 9s. in 1*l.*; standard 15s. per produce. A pitch in the back of the 72 east by two men at 13s. in 1*l.*; standard 15s. per produce.

WHEAL EDWARD.—G. Rowe, May 19: The lode in the 61 west is 2 ft. wide, showing a very kindly appearance, and producing some good saving work. The tribute department has improved, and the men getting good wages.

WHEAL GRENVILLE.—G. R. Odgers, W. Bennetts, May 19: The lode in the 120 west is 2½ ft. wide, composed of quartz and prian, and yielding a little tin. The lode in the stope below the 110 west is worth 7*l.* per fm. Two stopes above the 110 west; lode worth 7*l.* and 5*l.* per fathom. The lode in the 100 east is 2½ ft. wide, producing a little tin. The lode in the stope below this level is worth 6*l.* per fm. The lode in the stope above this level is worth 8*l.* per fathom. The lode in the 90 east is 2 ft. wide, of quartz, &c., producing a little tin. The lode in the rise above this level is 3 ft. wide, worth 10*l.* per fm. The lode in the stope above the 90 west is worth 5*l.* 10s. per fm. There is no change in the 80 east since our last advice. The lode in the two stopes above this level is worth 8*l.* and 9*l.* per fm. The lode in the 66 east is 3 ft. wide, and producing good tinny work, worth 8*l.* per fathom. The two stopes above this level are worth 9*l.* and 6*l.* per fm.—P.S. The ground in the 90 cross-cut, north of the main lode, since we passed the branch of spar mentioned in our last report, is of a softer white granite, with patches of elvan intermixed—in fact, it is very good looking ground for ore should a lode be discovered close by.

WHEAL GRYLLS.—Edward Rogers, Edmund Rogers, May 24: The 40 is suspended for the present time, and the men put to rise towards Grylls whim-shaft; the lode in the rise is worth 10*l.* per fathom, and is rising by six men, at 5*l.* per fathom. In the 35, driving east of Grylls shaft, the lode is 3 feet wide, worth 6*l.* per fathom; price for driving 3*l.* per fathom. In the bottom of the 30, No. 1 stope is worth 6*l.*, and No. 2 stope 5*l.* per fathom.

WHEAL KITTY (St. Agnes).—Wm. Polkinghorne, S. Davey, May 19: Since our general report of last week nothing new has taken place in either of the tutwork bargains to report on.

WHEAL MARY ANN.—P. Clymo, J. Harris, J. Stevens, May 24: Clymo's shaft-men are still engaged cutting a trip-plat at the 220. The cross-cut in the 210 is extended 20 fms. towards the lode. In the 200 north the lode is still small, but producing a little ore; in the same level south it is 4 ft. wide, worth 10*l.* per fm. There is nothing new to notice in the 190 north; in the same level south it is 1½ ft. wide, worth 6*l.* per fm. In the 180 north the lode is 3 ft. wide, worth 7*l.* per fm.; in the same level south it is still small, but producing a little ore. The stopes and pitches are producing much as usual. We sampled on the 22d inst. two parcels of lead ore—No. 1 (computed) 78 tons; and No. 2 (computed) 28 tons, for sale on the 29th inst.

WHEAL NORRIS.—J. Andrews, May 19: Carter's shaft is in regular course of sinking below the 70. In the 70 end, east of Carter's, the ground is easier for driving; present price, 45s. per fm. In the 57 end, east of said shaft, we are driving by the side of the lode. The lode at Hill's stope, in back of the 57, is 18 in. wide, worth 4*l.* per fm. The lode in the east stope, in back of the same level, is from 15 in. to 2 ft. wide, worth on an average about 10*l.* per fm. The new lode in the 45 end, driving east of cross-cut, is yielding saving work for tin.

WHEAL UNY.—S. Coade, M. Rogers, May 19: There is not any change of importance to report on this week. The lode in the different levels is just of the same value as reported last week.

WHEAL TREVENNA.—T. Jennings, May 24: We are still sinking on the course of the lode with a hand-pump in bottom of the 15, and am happy to find the lode fast improving as it goes down. I want to sink as fast as possible 10 fms. below the old men's workings, and lay the mine open at that depth; by doing so we can work our mine at a profit at the present price of tin. We are fast progressing with our engine wheel-pit, and sinking our new engine-shaft to enable us to get below the old workings. We are getting on well with our batch of tin for this month. Our lode is looking well at every point. All we now stand in need of is an advance in tin. We can then make large and regular returns monthly. Mr. Edwin H. Wadge (late of Manchester) paid me another visit yesterday, and thoroughly inspected both Wheal and South Trevenna Mines. I have no doubt but what Mr. Edwin H. Wadge will give a detailed report of those mines in his circular, which the adventurers will be pleased to see.

GOLD MINING IN AUSTRALIA.—We quote the following interesting particulars from Dicker's *Mining Record* (Melbourne, March 20):—

Quartz mining on Ballarat has never been followed up to the same extent as alluvial mining. The number of quartz mines there has been comparatively speaking limited, and their progress on the whole has not been very flattering. Until lately none of them had been followed to any great depth, but we are glad to see that one of them, the Sisters Quartz Mining Company, has been successfully prosecuting deep quartz mining. The shaft is 567 feet deep, and the stone is richer there than it was nearer the surface, late crushings having given averages exceeding 1 oz. to the ton. The Victoria Company, Clunes, another of our deep quartz mines, has very much improved of late; and the Mariner's Reef, Maryborough, from a depth of over 500 ft., has been giving quartz which has turned out nearly 6 ozs. to the ton. It is an interesting fact that the mine of the M'Ivor Caledonian Heathcote Company, which was one of the numerous ventures started during the mining mania of 1859, never looked so well as it does at the present time. In its original form many thousands of pounds were expended without any dividend being declared, and after a long career of ill-luck the mine, machinery, and plant were sold by auction for something under 1500*l.* The new owners afterwards sold one portion of the machinery, and with the remainder began to open up the mine. Within a very short time the new venture, now called the Alabama Company, began to return dividends to the proprietary. The average for the past six months has been nearly 2 ozs. to the ton. The shaft has been sunk to a depth of 360 ft., and as a proof of the richness of the stone it may be stated that an offer has been made to continue sinking the shaft for half the gold. As the sinking was costing 14*l.* per foot, the estimate made by the contractors to give them an equivalent wage would suppose the gold in the area of the shaft to be worth at least 28*l.* per foot for every foot sunk. The crushing for this last week was 220 ozs. from 108 tons. The news from other quartz mining districts is fully as encouraging, although the mines, from more recently being opened up, are not so deep. At Maldon, the Eaglehawk Union Quartz Mining Company, which has been in existence for many years, has been doing exceedingly well of late. From Jan. 17 last up to

been shown additional specimens from the Traralgon coal field. The locality is in a valley, surrounded by precipitous ranges, among the eastern spurs of Mount Baw Baw, on the banks of the Jamieson Creek, about four miles above its junction with the Glengarry, and about ten miles distant from Traralgon. The coal is seen cropping up at intervals for a distance of nearly a mile. It appears like cannel coal, and burns freely, leaving a white ash. A good road can easily be formed from the locality to Sale or Rosedale. The discoverers are William Randall and Charles White."

THE COMPANIES ACT, 1862.

The following communication has been forwarded by Mr. PULBROOK to the Board of Trade, and its receipt acknowledged, on the part of their Lordships, by Mr. EMERSON TENNENT:—

SIR,—It being proposed to amend the Companies Act, 1862, this session, might I be permitted to bring before your notice some suggestions which I think would be found worthy of your consideration?

In the first place, I would call your attention to the recent decisions in the case of Hutton *v.* the Scarborough Cliff Hotel Company (Limited), relating to the issue of preference shares by companies. These decisions have raised so much doubt in the minds of investors that the issue of preference shares of any kind is now practically impossible. I think it will be conceded that companies should have power, under certain restrictions, to issue preference shares, and that whether or not they should be issued is a question which ought to be within the province of a majority to decide. If express power were, by an Act of Parliament, given to companies, with the sanction of a special resolution, to issue preference stock, I think it would meet with general favour, and be found to be of great benefit in affording to many companies the means of pulling through their difficulties, which they would otherwise be unable to overcome.

I will next place before you the anomalous position which shareholders are placed in at their general meetings. These meetings are the only occasions open to shareholders to express their opinions on the management of the company, and, therefore, every means should be provided to enable the real wishes of the majority to be correctly ascertained. The Chairman of the meeting, it must be admitted, has enormous power placed in his hands, and is almost an arbitrator between the contending factions. If any question be raised, it is almost universally between the directors and shareholders, and, as one of the former body is invariably Chairman, the proceedings, in 99 cases out of 100, will be found in practice to be perfect farces. The dodges and misrepresentations of directors have arrived at a pitch which is perfectly disgraceful. Independent shareholders find themselves brow-beaten and jeered at, whilst the most glaring illegality is practised before their eyes in declaring the results of shows of hands, polls, &c. It is true that in some cases remedies may be had in the Courts of Equity; but, then, what use is it for a shareholder to go to law? He does so at his own expense, and the directors do so likewise, as the proceedings are carried on by them in the name and out of the funds of the company, which are most unsparingly used, and the enormous risk and expense of fighting a company generally deters shareholders from enforcing their rights.

A remedy has occurred to me for this state of things, which I think would be found to work well in practice. It is this:—Let a certain number of barristers be nominated as official Chairmen, and name a fee to be paid to them for presiding at meetings. I then propose that, upon this sum being deposited with the Registrar of Joint Stock Companies, within a certain period of the meeting, any shareholder might require the attendance of an official chairman at a meeting. The rota might be determined by the Registrar in the manner followed in appointing the conveyancing counsel of the Court of Chancery. Shareholders would thus effectually secure impartiality in the conduct of their meetings, and thereby some sort of check would be placed on directors improperly conducting companies' business, which they now do with impunity, relying on their powers at general meetings. I would further suggest that the Court, on winding-up a company, should have power to direct that the winding-up should take place out of Court, in the same manner as a voluntary winding-up. Why should not official liquidators appointed by the Court, after due enquiry, and with heavy sureties for good conduct, be enabled to wind-up companies in the same manner as liquidators appointed by shareholders, without any security whatever? This would not only afford relief to the present overwhelming business in the Chambers of the Equity Judges, but would afford further protection to shareholders, who, by reason of the power of directors at meetings, are unable to wind-up their company voluntarily, and are afraid of the expense of a Court of Chancery, and, therefore, they allow the company to go on for the sole purpose of putting fees in the directors' pockets rather than apply for a winding-up order.

If you think the foregoing proposition worthy of your consideration, I should be happy, at a personal interview, to give you further illustrations of the necessity for the alteration of the existing state of things. A. PULBROOK.

Threadneedle-street, London.

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

WHEAL CHIVERTON.—The lode in Cookney's engine-shaft is reported to be worth 100*l.* per fm. for the length of the shaft, and 50*l.* per fm. of ground.

GOTHIC MINE.—Our shareholders will be interested to learn that the extension of the old works in this mine have been steadily progressing during the last four months, and it is highly satisfactory to be able to state that the lode in the 30 east has been improving in width and value for lead ore, especially during the last month. Our manager at the mines writes on May 23, that it yields at this time 1 ton per fathom, and that in about another fortnight he expects, from present indications, the south lode in the 25, now containing ore, will prove also highly productive. The directors have decided to pay all shareholders whose names are on the company's register on the 24th June 5 per cent. of the 10 per cent. guaranteed dividend, to be payable on and after July 1 next following, instead of deferring the payment of the whole dividend to February 1 next.

WEST POOL MINE has recently increased so much in value as to have been enabled to cancel its debit balance, and pay a handsome dividend. The adventurers in this mine have lately received 36*9l.* per share in dividends, and the market value of each share, for which 24*l.* has been paid, now stands at 400*l.*

NEW WHEAL TOWAN.—This property is being worked under Captain Pryor, who writes very hopefully of the results of energetic development. There is a good pile of copper at surface, and the lode at the adit is estimated to be worth 1 to 1½ ton of ore per fathom. Old Wheal Towan gave good profits some years back, and New Wheal Towan immediately adjoins it, and possesses the same lodes, so that equally favourable results are anticipated. A few months' energetic working will, in all probability, place this concern in a very enviable position.

CAPE CORNWALL.—In driving the 80 fathom level west, within the last few days, the lode is spotted with rich yellow copper. The 70 west, which is some 50 fathoms in advance of this level, is looking quite as well for copper as hitherto, and this last improvement is very confirmatory of the success which will be met with in the intersection with the caunter lode. There is no doubt, under ordinary circumstances, much importance would be attached to this discovery.

THE ST. JUST DISTRICT.—Excellent progress is being made with the development of the East St. Just Mines in this district. The engine-shaft will be soon down to the caunter lode, by which all the other lodes will be intersected; but operations are, in the meantime, being prosecuted enertically upon four or five parallel lodes, and the monthly sales are increasing. There are very good prospects before the shareholders, as the extent of the sett, the favourable position of the mines, the quantity of mineral which has been raised above the adit, and the economical management being pursued, cannot fail to reward their outlay and perseverance. The Botallack Mine is again taking a position, owing to the splendid discovery of copper in the western ground, and they have just declared a handsome dividend to their shareholders. The value of the course of copper is about 200*l.* a fathom, and looking extremely well. The Cape Cornwall Mines are also looking well for both tin and copper. The latter is expected to be met with in the lodes, going west, and if so, there will be a very reasonable probability that great results will accrue, as both the Botallack and Levant Mines have made their riches in similar channels of ground. They cut a branch of copper some weeks back in the level, and within the last few days there is a stream of water in this end, which is indicative of the approach of the caunter lode, against which they hope to make their ore. St. Just United and the St. Just Consols Mines are also looking well, and likely to repay their development.

ACCIDENT TO MR. RICHARD DAVEY, M.P.—Mr. Richard Davey, M.P. for West Cornwall, met with an accident, on Wednesday evening last, whilst underground at Fowey Consols Mine. In company with Mr. Kendall, M.P., for East Cornwall, he had been underground at Polharmon Mine, which adjoins Fowey Consols; the two mines also communicate with each other underground. The two gentlemen were returning by way of the 60 fm. level, for the purpose of ascending by the Fowey Consols man-engine. On their arrival at the man-engine shaft, and whilst they and the agent were explaining to a young gentleman in their company the nature of the working of the man-engine, Mr. Davey was observed to suddenly disappear from the sollar of the shaft through the man-hole in the ladder-way, by the side of the man-engine rod. He fell a distance of 12 feet, which brought him to the man-hole of the next sollar, and which he lay across. The agent (Capt. Philip Rich), who observed the fall, instantly descended by the ladder to his assistance, and removed him from his perilous situation, otherwise Mr. Davey's legs would have been crushed within a period of ten seconds by the step of the man-engine rods. The unfortunate gentleman was with difficulty drawn to surface, and taken to Fowey Consols counting-house, where he now lies with an injury in the back. He is under the medical treatment of Dr. Row and Mr. Pace. His friends, Mr. Kendall and Mr. Richard Foster, with the Fowey Consols agents, are rendering him all possible assistance.—*West Briton.*

FATAL ACCIDENT AT ST. DAY UNITED MINES.—As Richard Stevens, age 16, was working in the 90 fm. level, at Bissoepool engine-shaft, he missed his footing, and fell in the shaft a distance of 40 fms. He was the only support of two widows, his mother and sister, and two small children.

THE QUICKSILVER TRADE.—It seems by no means improbable that the supply of quicksilver will materially increase within the next few years, so that new uses for it must be found if the price is to be maintained. The yield of quicksilver from the New Almaden Mine, the great source of supply on the Pacific coast, has been for the first quarter of the present year 11,153 flasks, against 10,705 for a corresponding period last year. Operations having been resumed at the New Idria Mine, and the business of extracting this metal entered upon at several other points in California, the product may reasonably be expected to increase rapidly within the next few years. The San Francisco "Mercantile Gazette" notices that a very extensive deposit of cinnabar, carrying a percentage of metal that threatens to rival the deposits at New Almaden, has recently been discovered in the Coast Range, not far from the New Idria Mine. It is in the hands of men of energy and large means, who propose to proceed with its immediate and energetic development, provision having been made for exploring the deposit, and erecting reduction works. The price of quicksilver at San Francisco remained at about the same at the date of our last advices. For export parcels 55c. per lb., and for local use 65c. per lb. were agents' rates April 10. Since January 1 to April 1, the export has been 11,332 flasks: To China, 3725; to England, 3000; to New York, 2028; to Mexico, 2011; to Peru, 500; to Australia, 200; to other countries, 41—total, 11,532.

PROTECTING GUNPOWDER.—Some improvements in the means employed for the prevention of the ignition of matter capable thereof have been patented by Mr. Allman, of Ampthill-square. The means he employs for the prevention of ignition of gunpowder or other combustible or explosive matter is to deposit the said matter in an air-tight chamber, made of wood or other similar material, lined with lead, copper, or other suitable material not liable to produce sparks or fire. The said vessel being properly closed at the entrance, he pours carbonic acid gas into the chamber until it completely surrounds the inflammable matter thus preventing the access of fire. The inventor remarks that his invention is the application of the well-known property of carbonic gas of extinguishing inflammation or ignition to preserving powder magazines from fire.

GALE'S PROTECTED GUNPOWDER.—In refutation of the paragraph affirming that the Government have positively refused to use or have anything to do with Mr. Gale's patent, it will be unnecessary to say more than that there is no foundation whatever for the assertion, beyond the fact that those who have given currency to the prejudicial statement appear to have written to a wrong department of the Government, and, of course, received a reply that that department had no intention of applying the invention. Mr. Gale is, fortunately, in a position to afford conclusive documentary evidence which must at once remove all doubt in the matter, an official communication, dated May 18, informing him that the Government had shipped between 11,000 and 12,000 lbs. of gunpowder for the purpose of being tested in No. 37 Martello tower, between Hastings and Winchelsea, and requesting him to supply the necessary mixing machinery, and to be present when the trials were made.

GALE'S AMMUNITION-SLIDE GUN.—The invention for rendering gunpowder explosive and non-explosive at pleasure has already rendered Mr. Gale extensively and favourably known to the public, and his ammunition-slide gun, which we have just had the opportunity of examining, is, undoubtedly, calculated not only to increase his fame, but to prove of enormous advantage in connection with the science of warfare. The new gun is extremely simple, contains no parts liable to derangement, and is handled with quite as much facility as an ordinary rifle. Its construction will be best understood by comparing it to a weapon in very general use—Colt's revolver. The chief difference in external appearance consists in the substitution of a peculiarly constructed horizontal slide for the cylindrical breech-piece hitherto employed; and, although at first sight the annular arrangement would appear to be the most convenient, the modification has, in the hands of Mr. Gale, been made to afford advantages never before attempted. The chambers are passed through the gun transversely, in a horizontal position, the slide containing them being breech-loading, and of a most ingenious form. The ordinary pin-cartridge is that which is employed; and, the cartridges having been placed in position, the slide is closed in such a manner that, although the pins are all readily accessible to the hammer as the several chambers pass behind the barrel, they are so completely protected that the loaded slide might be handled without danger by a child. Beneath the slide a series of indentations are provided, which the pin upon the propelling lever take into, the lever being so arranged that the motion of the pin shall be first forward and then transversely; consequently a fresh chamber is placed in position every time the hammer is raised. The gun will fire 200 rounds per minute with the greatest ease, and offers many advantages, which will be fully referred to in next week's Journal.

PROFITABLE CORNISH MINING.—Botallack Mine cheered the hearts of its adventurers on Wednesday by an 85th dividend—5*l.* a share, 1000*l.* in all—part of the 170 tons of copper sold during the quarter, and this, in its turn, mineral raised from the new lode, worth 100*l.* per fm. for 14 fms. The toilers under the sea have explored 1041½ fathoms of new ground within the last three months. Botallack has now been under its present management 30½ years. It asked its owners for 18,250*l.*: it has yielded them 102,150*l.* Unworked for mineral, it is an almost worthless belt of cliff: explored, it has given Lord Falmouth 23,602*l.* Its 5112¾ tons of tin have sold for 321,734*l.*; its 17,466¼ tons of copper for 183,011*l.* In 30 years it has spent in labour 275,476*l.*; in materials and engines 129,609*l.* Were the price of tin at its average for 30 years, Botallack would give its adventurers 5000*l.* a year more than now.

THE DOROTHEA WEST GREEN, BLUE, AND RED SLATE COMPANY.—It will be observed by the announcement at the foot of the prospectus of this company, advertised in another column, that, although the company has only had possession of and worked the quarry since Jan. 1 last, an actual profit on all the working expenses has already been realised of more than 40 per cent. This augurs well for the prosperity of this company, since, as the works are extended, the returns will doubtless be larger, and the profits, based on actual, not calculated, amounts, pay a good dividend to the shareholders. The Chairman accompanied by several of the directors have visited the quarry during the past week, and have been highly gratified with the successful progress which has already been made. The green slate from this quarry, so much in demand, can be seen at the Journal office, as well as on the public buildings of London mentioned in the prospectus. Good slate quarries are certainties, and it is to be regretted that the money wasted in speculative financial schemes had not been employed in such legitimate and profitable works, which are so well calculated to promote the permanent prosperity of the country.

CHONTALES.—We have received the thanks of many of the shareholders for our articles on this company, and for explaining to them the manner in which the shares are being dealt with in the market. Though not emanating from the company, or its officials, our readers may depend on the full accuracy of our remarks. In a report of Captain Paul's, dated May 24, 1865, previous to the formation of the company, after giving a detailed estimate of the costs and returns, he remarks, "The above statements, which show a nett profit of 232 per cent. per annum, high as it may appear at first sight, I have not the least doubt will be fully realised when the mines are put in working order, and which may not necessarily exceed six months from the time of landing the machinery required in the country." The directors of the company also stated, in their circular of the 14th ult., that "It is satisfactory to know that the works at the mines will have been advanced a full year by the arrival of the large force of men and machinery during the present dry season. The board have learned with satisfaction that all the machinery shipped monthly since November up to the period of the last despatches had been safely landed at Greytown, and immediately transhipped to the river steamers, and taken in transit to the lake without delay, from whence Capt. Paul states he finds no difficulty in conveying it to the mines." The directors further stated that they looked forward "with confidence, that within six or eight months from this date (April 14) *regular returns may be expected.*" From information received by the mail, which arrived last week, we have reason to believe that they will be in a position to commence returning gold with the aid of the new machinery, and the large staff sent out, in about three months from this date, or, perhaps, less. By the official report from Capt. Paul, which appeared in last week's Journal, it will be seen that he states the roads are now good, and that at the mines they are preparing "to do a vast deal of work during the following winter (which is the wet season, now commencing in Nicaragua), which will more than compensate for the little we should be able to do with the old native machinery," and we have reason to believe that Capt. Paul expects to make large returns during the winter, now beginning in that country. With regard to what is called the "bear" account in the shares, we have only to repeat that speculators have largely oversold, and have been borrowing shares for some months past to deliver to purchasers. Those who are acquainted with the property and its prospects, and the state of the share market, are quietly buying, and the position of the "bears" is becoming daily worse. The borrowed shares have gone into the hands of holders, but others will have to be found in their place to return to the lenders, while the almost daily purchases by investors have also to be supplied. *When*, and *how*, is it to be expected that the bear account will be closed? We would warn the shareholders against the plausible advice to sell now, in order to buy back cheaper by-and-bye. Those who have already sold with that view would, no doubt, like to bring a large number into the market, but will *all* the shareholders, or *most* of them, turn "jobbers" and "dealers?" How many will act on such advice? Will the number of shares they will dispose of have any appreciable effect on the market? Will they even supply the "bears" with what they now want? How do they know that they may not have to buy back at a *higher* price, particularly if others are doing the same? and if the price fell there would soon be buyers for a larger number than may have been sold.

But while it is clear that regular and good returns of gold with the aid of the new machinery may be expected to begin sooner than some persons at present wish the shareholders to believe, there is another important point which is quite overlooked, and which may, in the meantime, have a great effect on the value of the shares. The late Captain Francis, in his report, of which extracts were circulated by the directors, stated that at Consuelo Mine a cross-cut had been commenced, "with the hope of cutting the lode shortly under the present workings; should we cut the lode as rich at this level as it is in the levels above, it will be second to no gold mine in the world. I have worked at the St. John del Rey and at the Catabranca Mines, in Brazil, but I never saw anything like this mine for its richness in all my travels." Now, it will be noticed that in Captain Paul's last report, published in the *Mining Journal*, they "are now pushing on the bottom cross-cut at Consuelo as fast as possible night and day, also a cross-cut at St. Domingo," so that *any* mail may bring the news of a most important discovery, adding greatly to the value of the property, and having a corresponding effect on the shares. In that case, the few shareholders who may have lately been induced to sell with the intention of repurchasing, may rest assurred that if they are not "market men" they will hear of the discovery and the rise in shares at the *same time*, and that they will have no opportunity of investing again, except at a considerable advance.

The present state and prospects of the large finance companies, and of mining for tin and copper, tend forcibly to attract investors to such an undertaking as the Chontales Gold Mining Company, the chances of the extraordinary success of which within a short period are so probable, without any risk of large personal liabilities.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, MAY 25, 1866

	£	s.	d.	£	s.	d.
COPPER.						
Best selected....p. ton	89	0	0	—		
Tough cake & tile „	86	0	0	—		
Burra Burra.... „	90	0	0	—		
Copper wire .....p. lb.	0	11¾		—		
ditto tubes ..... „	0	12¼		—		
Sheathing & bolts p. ton	91	0	0	—		
Bottoms .....„	96	0	0	—		
Old (Exchange).... „	77	0	0	—		
IRON.	Per Ton.					
Bars Welsh, in London..	7	10	0	8	0	0
Ditto, to arrive	7	10	0	7	12	6
Nail rods	8	7	6	9	5	0
„ Stafford. in London	8	15	0	8	17	6
Bars ditto	8	15	0	10	0	0
Hoops ditto	9	15	0	10	10	0
Sheets, single	10	7	6	11	0	0
Pig No. 1, in Wales....	4	5	0	4	10	0
Refined metal, ditto....	4	0	0	5	0	0
Bars, common, ditto....	6	15	0	7	5	0
Do., merch., Tyne or Tees	7	10	0	—		
Ditto, railway, in Wales	6	10	0	6	15	0
Ditto Swed. in London.	11	10	0	—		
To arrive	11	10	0	—		
Pig, No. 1, in Clyde....	2	15	0	3	0	0
Ditto, f.o.b. Tyne or Tees	2	9	6	—		
Ditto, Nos. 3, 4, f.o.b. do.	2	6	6	2	5	6
Railway chairs.....	5	10	0	5	15	0
„ spikes.....	11	0	0	12	0	0
LEAD.						
English Pig, common..	21	0	0	—		
Ditto, ordinary soft....	21	5	0	21	7	6
Ditto (WB)	22	10	0	22	15	0
Ditto sheet	21	15	0	—		
Ditto red lead	23	10	0	24	0	0
Ditto white	27	0	0	30	0	0
Ditto patent shot.....	23	15	0	24	0	0
Spanish	20	5	0	20	10	0

	£	s.	d.	£	s.	d.
BRASS.	Per. lb.					
Sheets	9d.–					
Wire	8¾d.–					
Tubes	11d.–					
STEEL.	Per Ton.					
Swedish, in kegs (rolled	13	0	0	14	0	0
„ (hammered).	15	0	0	16	0	0
Ditto in faggots.....	16	0	0	16	10	0
English, Spring	19	0	0	23	0	0
QUICKSILVER (per bottle).	7	0	0	—		
SPELTER.	Per Ton.					
Foreign	20	12	6	—		
To arrive	21	0	0	—		
ZINC.						
In sheets	28	0	0	—		
TIN.						
English, blocks	85	0	0	—		
Ditto, Bars (in barrels)..	86	0	0	—		
Ditto, Refined	88	0	0	—		
Banca	78	0	0	—		
Straits	75	0	0	—		
TIN-PLATES.*						
IC Charcoal, 1st qua. p. bx.	1	13	0	—		
IX Ditto 1st quality „	1	19	0	—		
IC Ditto 2d quality „	1	11	0	—		
IX Ditto 2d quality „	1	17	6	—		
IC Coke ..... „	1	6	6	1	7	0
IX Ditto..... „	1	12	6	1	13	0
Canada plates ....p. ton	13	10	0	—		
In London; 20s. less at the works.						
Yellow Metal Sheathing...p. lb.	8¼d.–					
Sheets.....p. lb.	8½d.–					
Indian Charcoal Pigs in London	7	0	0	7	10	0

* At the works, 1s. to 1s. 6d. per box less.

REMARKS.—Although it may be hoped that the worst results of the late financial panic have passed away, yet the numerous failures which have recently taken place, and the apprehension that many others will follow ere long, have produced a considerable want of confidence, which is most disastrous to business, and seems for the time to have put a stop to all operations in the Metal Market, which is now in a most dull and inactive condition; only very few orders, and such as are almost imperative, being given out, while all transactions of a speculative character have entirely ceased. These results naturally follow from the events which have lately occurred in monetary affairs, and must be expected to have an influence upon commerce for some time to come. The uncertainty also which still exists as to the question of war or peace on the Continent is very prejudicial to business, and until this is decided everything must remain unsettled. It is, however, much to be feared that the proposed Congress will fail in allaying the war feeling which appears to exist in one at least of the armed powers, though we still trust that so dreadful an event as a European war may be prevented. In the metal market the prices of most metals still remain very low, and there does not appear any immediate prospect of improvement. From Bombay, however, the accounts are more encouraging as to metals, most of them being in better demand, and rather advancing in price.

COPPER.—The market is certainly rather firmer than it has been lately, and the prospects rather more encouraging; a much better enquiry exists, and though transactions still take place under the official quotations, still they are not so much below as they have been, and there is hope that we shall see a still greater improvement ere long, as there is good reason to believe that the market has been unduly depressed, and that the value of this metal is really greater than it has been considered lately.

IRON.—In Staffordshire there is a quiet demand for manufactured, and rather more orders have come to hand from the United States, but still the works are not generally fully employed. The monetary crisis has not seriously affected Staffordshire, beyond curtailing profits and inducing caution. In Welsh the financial panic has not affected the iron trade to the extent that was expected, and great confidence is felt in the soundness of the trade; still business has been very much checked. Generally speaking, the foreign trade is quiet, especially with the markets of Southern Europe; but it is satisfactory to observe that the advices from New York are more favourable, and there is a probability of a better trade with America. There are also a few orders in hand from Russia, while the reports from the Eastern markets are still rather unfavourable. The demand for pigs continues slow, buyers holding out for a further reduction; but the general opinion is that present prices will not get much lower for the make of the district. In Swedish iron the demand has very much improved, and prices are decidedly firmer. In Scotch pig iron the market has continued its downward course, and a limited business only has been done. The best price named is 51s. cash.

LEAD.—No alteration has taken place in prices, which remain as last quoted, the market continuing quiet.

TIN.—The market for foreign still remains very inactive, and a very small amount of business has been done during the week; prices, however, are still quoted as before. English is still obtainable under the official quotations.

SPELTER.—The uncertainty of affairs on the Continent has the effect of keeping the market for this metal still very dull and inactive; and hardly any transactions are reported during the week; parcels on the spot are said to have been sold at 20*l.* 12s. 6d.

TIN-PLATES.—There is not much doing at present, and prices show a downward tendency.

STEEL and QUICKSILVER without alteration.

THE IRON TRADE—[GRIFFITHS'S BI-WEEKLY REPORT.]

WOLVERHAMPTON, MAY 25.—We are glad that we have no failures to report in the Iron Trade of North or South Staffordshire. All our banks likewise in Birmingham and the Black Country are sound and healthy, and evidently possess the confidence of the depositors and the trading community. The stoppage of the London banks was the general conversation at the Wolverhampton and Birmingham Exchanges this week. The European Bank was scarcely known here; on the other hand, the Bank of London was well known, and thought very highly of. This failure is looked upon as a great calamity, and an unnecessary and cruel sacrifice to the cupidity of certain operators at Capel-court. The Bank of London had scarcely any business connections either in Birmingham or the Black Country; therefore, this failure will not *directly* affect us. In pig-iron there is nothing doing. When the market is settled, prices must mark lower. With regard to finished iron, orders are very scarce, and most of the works are without a sufficient supply to keep the wheels moving. Most of the manufactories have been closed this week, owing to the Whitsuntide holidays. We understand Gibbs Brothers have arranged their affairs, and intend to continue to work the Deepfields Ironworks. The feeling on the Birmingham Exchange was rather desponding, in face of difficulties in London, which the trade appeared to think were looming in the distance.

BIRMINGHAM, MAY 25.—Rylands' "Iron Trade Circular" says—What with holidays for men, and depression for masters, there is nothing doing in the Iron Trade. No business, and no prices. Foreign orders are withdrawn. American orders have not come; in short, the trade is postponed.

COAL MARKET.—The fresh arrivals this week have only numbered 102 ships. The demand for all descriptions of coal has continued quiet, and last prices fairly supported. Hetton Wallsend, 18s. 6d.; Haswell Walls-

end, 18s. 3d.; South Hetton Wallsend, 18s. 3d.; Braddyll's Hetton Wallsend, 17s. 6d.; Kelloe Wallsend, 16s. 6d.; Tunstall Wallsend, 16s.; Framwellgate Wallsend, 16s.: 15 cargoes unsold; 25 ships at sea.

EXPORTS OF COAL.—By the Monthly Circular of Messrs. Higginson, Liverpool, we learn that the quantity of coal exported in April was 888,490 tons, against 730,503 tons in the corresponding month of 1865, showing an increase of 157,987 tons. The particulars are—From the Northern ports, 466,504 tons; Yorkshire, 33,205 tons; Liverpool, 54,951 tons; London, 4271 tons; Severn ports, 264,365 tons; and Scotch, 65,194 tons. The increase was—Northern ports, 63,973 tons; Yorkshire ports, 13,664 tons; Liverpool, 8890 tons; Severn ports, 66,796 tons; Scotch, 6445 tons. The decrease was—London, 1781 tons. Total shipments, 2,759,308 tons, against 2,493,163 tons in 1865, showing an increase of 266,145 tons. The exports coastwise from Liverpool during April, 1866, were 11,773 tons, an increase over April, 1865, of 1776 tons. The total imports of South Wales and other coals coastwise into the port of Liverpool during April, 1866, were 4969 tons, showing a decrease as compared with April, 1865, of 6847 tons. During April, 1866, 227,645 tons of sea-borne coals were imported into London, being 13,639 tons less than during April, 1865. By railways and canals there were imported during April, 1866, 250,890 tons, showing an increase of 11,511 tons as compared with April, 1865.

THE WAR CRISIS, AND THE COAL TRADE.—It is a circumstance worthy of note, in connection with the present difficulties on the Continent, that all countries likely to be engaged in the war have increased their supply of coal to an enormous extent. Italy has been importing coal lately in such large quantities that the freights on the east coast have greatly advanced, and vessels can scarcely take the coal with sufficient rapidity. This supply is for the Italian navy. Austria has also increased her supply of coal very largely, although it would appear that her navy is not to be actively engaged in acts of aggression upon Italian merchantmen. Prussia has also largely increased her supply, and the same remark will apply to Russia and France.

The MINING SHARE MARKET has shown rather more activity this week, and a good business has been transacted in one or two mines, particularly in Prince of Wales, West Chiverton, Camborne Vean, Clifford, East Grenville, Great Laxey, Great North Laxey, Wheal Chiverton, &c., many of which show an advance in price. The standard is down again this week. West Chiverton, 68 to 70; the accounts, which we had not receive in detail last week, show—lead ore sold to April 28, 11,338*l.* 9s. 5d.; balance last account, 10,013*l.* 8s. 11d.: total credit, 21,625*l.* 17s. 5d. The costs for three months included about 2000*l.* for extra work and machinery, yet they show a profit of 4938*l.* on the quarter, and have a cash balance in hand, after payment of dividend, of 9975*l.* 10s. 3d.; but sales of several thousand pounds worth of lead had been made, and not credited in the accounts. The statement of the purser says—"The ore sold and sampled for the next account is nearly equal to our previous sales,"—meaning, according to our interpretation of words, that three months before the next account ores nearly equal to sales credited in the last have been sold and sampled. East Grenvilles had been rather firmer, 2 to 2¼. The 85 west looks like improvement. Camborne Vean, 17s. 6d. to 22s. 6d.; Chiverton Moor, 5¼ to 5⅝. West Frances, 4 to 6; at the meeting, held on May 17, the accounts showed a loss of 558*l.* 7s. 6d. on the quarter, and a balance against the mine of 751*l.* 12s. 8d. A call of 1*l.* per share was made. The tin sold was about 36 tons, which realised 1668*l.* 2s. 1d. The report states that a large quantity of tin ground has been laid open for stoping in the 70, 77, 85, and 95 fm. levels, which could be worked to profit, so as to give moderate dividends, if the price of tin had been as high as the average of eleven years to the end of 1863.

Frank Mills, 3¾ to 4¼; the accounts to be produced at the meeting, on the 26th instant, have been printed and circulated, and show a profit on three months of 25*l.* 3s. 8d., charging cost paid in April, and crediting ores sold on May 17; this, added to the balance shown last quarter, makes the credit balance 2120*l.* 12s. 10d. The sampling for the quarter is 50 tons short, owing to the inability to work the wide stopes in February and March, in consequence of the water, and of the falling off in the value of the stopes since that time. The lode cut in the 130 is worth 1 ton per fathom. East Caradon shares have improved to 5¾, 6¼; the ends are looking better, particularly on the south lode, the 70 east being worth 12*l.* per fm.; the 70 west, 15*l.* per fm. Chontales Gold shares have been flatter, owing to the closing of "bear" accounts, and leave off 2¾ to 3. Clifford Amalgamated, 9 to 10. Wheal Buller, 15 to 16; at the meeting the accounts showed a loss of 650*l.* 5s. 5d. on the two months, and a balance against the adventurers of 833*l.* 16s. 10d.; a call of 1*l.* 10s. per share was made. The 80, east of Kistle's, is 4 feet wide, producing occasional stones of rich copper ore. The costs for the next two months will be considerably lessened, and the returns will be larger. East Basset, 13 to 15; Frontino and Bolivia, 15s. to 20s.; Great Laxey, 21 to 22; Great North Laxey, 1¾ to 2; Great Wheal Vor, 16½ to 17½; Marke Valley, 3¾ to 3⅞; North Treskerby, 2¼ to 2½; Prince of Wales shares have been dealt in very largely, and leave off 7s. to 9s.; Providence Mines, 22½ to 25; Tincroft, 9¾ to 10¼; West Seton, 125 to 130; Wheal Chiverton, 6 to 6½; Wheal Seton, 195 to 200; Wheal Trelawny, 13 to 14. Devon Great Consols, 500 to 520; at a directors' meeting, to-day, a dividend of 7*l.* per share (7168*l.*) was declared, arising from profits made in the months of January and February. After payment of the dividend, there remains in hand a balance of 16,708*l.* 18s. 3d. Old Gunnislake, 30s. to 35s.

The panic on the Stock Exchange has increased in intensity during the week; it would appear at last to have culminated, the feeling at the close of the market being decidedly more cheerful. Mines have not suffered to any great extent during the week, and quotations are not materially changed from last week. The prices of metals continue to have an unfavourable influence, and prices for shares are so low that worse cannot well ensue. Great Vor shares are firmer, at 16½ to 17½; West Chiverton shares in demand at 70, ex div.; Chiverton, 6 to 6½; Chiverton Moor, 5⅞ to 5⅝; St. John del Rey shares are steady at 50 to 52; Washoe, ¾ to 1⅛; Frontino, ¾ to ⅞ dis.; Chontales are again firmer, at ⅞ to 1⅛ prem.

IRISH MINE SHARE MARKET.—The extraordinarily low price of the Mining Company of Ireland shares, which on the 15th inst. were quoted at 16*l.* for cash and account, but advanced before the close of last week to 17*l.* 15s., induced many speculative purchases, and a consequent strong upward movement, which resulted in an advance by Wednesday last to 23*l.*, making a total rise since the 4th inst. of 7*l.* 7s. 6d. per share; but the unfavourable state of the money market, and the financial crisis which originated in London, have produced a temporary reaction, and the quotations of these shares have again given way, they being now on sale at 22*l.* 15s. for cash, and rather weaker for forward delivery. Wicklow Coppers have not been so firm as usual, having receded from 23*l.* 15s., our last week's quotation, to 22*l.* 15s., being a fall of 1*l.* per share for the week, with very little business doing at present. Connorrees have also been dealt in, but at the reduced figure of 18s. 6d.

At Truro Ticketing, on Thursday, 2484 tons of ore were sold, realising 10,913*l.* 19s. 6d. The particulars of the sale were:—Average standard, 104*l.*; average produce, 6¼; average price per ton, 4*l.* 8s.; quantity of fine copper, 170 tons 12 cwts. The following are the particulars:—

Date.	Tons.	Standard.	Produce.	Price per ton.	Per unit.	Ore copper.
April 28....	2387	£110 12 0	6⅜....	£4 6 0	13s. 6d.	£67 8 0
May 3....	2456	105 19 0	7	4 13 6	13 4	66 14 0
„ 10....	1912	112 7 0	5¾....	3 13 6	12 10	64 3 6
„ 17....	4945	115 2 0	5½....	3 12 6	13 1	65 9 0
„ 24....	2484	104 0 0	6⅜....	4 8 0	12 9½	64 0 0

Compared with last week's sale, the decline has been in the standard 2*l.* 5s., and in the price per ton of ore about 3s. Compared with the corresponding sale of last month, the decline has been in the standard 3*l.* 15s., and in the price per ton of ore about 5s.

The directors of the Devonshire Great Consolidated Copper Mining Company, at their board meeting, held yesterday, declared a dividend of 7168*l.*, being 7*l.* per share, arising from profits on sales of copper ore sampled in the months of January and February last. After payment of the same, there remains in hand a balance of 16,708*l.* 18s. 3d., in cash, ore bills not at maturity, and reserved fund applicable to the general purposes of the company.

At Botallack Mine meeting, on May 16, the accounts for the quarter ending March showed a credit balance of 1796*l.* 10s. 3d. The profit on the three months' working was 917*l.* 18s. 6d. A dividend of 1000*l.* (5*l.* per share) was declared. Mr. S. H. James, jun. (the clerk), had prepared the following interesting statement of the receipts and expenditure of the mine from January, 1836, to December, 1865:—Amount called up, 18,250*l.*; 5112 tons 14 cwts. 2 qrs. 24 lbs. of tin sold, 321,734*l.* 5s. 4d.; 17,466 tons 7 cwts. 1 qr. of copper sold, 183,011*l.* 1s.; sundry credits, 8720*l.* 19s. 4d.=531,716*l.* 5s. 8d.—Dividends paid, 102,150*l.*; dues paid, 23,602*l.* 8s. 6d.; labour cost, 275,476*l.* 1s. 3d.; materials, engines, &c., 129,609*l.* 4s. 2d.: balance, 878*l.* 11s. 9d. Capts. H. Boyns, J. Rowe, and J. Boyns say—"We can raise our usual quantity of tin if thought advisable, but the wretchedly low price at this time is ruinous to us. Ground opened in the three months in shafts, winzes, and ends, 177 fms. 5 ft. 11 in.; ground stoped on tutwork, 624 fms. 1 ft. 4 in.; ground broken by tin tributers, 239 fms. 2 ft."

At West Chiverton Mine meeting, on May 17 (Mr. E. Burgess in the chair), the accounts (as stated in last week's Journal) showed a credit balance of 15,225*l.* 10s. 3d. A dividend of 5250*l.* (35s. per share) was declared, leaving 9975*l.* 10s. 3d. to be carried forward to the credit of the next account. Details in another column.

At Wheal Owles meeting, on May 18, the accounts for Jan., Feb., and March showed a credit balance of 675*l.* 17s. 3d. Work performed during the quarter:—120 fms. 5 ft. 9 in. driven in levels, and 18 fms. 4 ft. 9 in. sunk in shafts and winzes: 22 pares stoping on tut for tin, and 35 pitches on tribute.

At West Basset Mine meeting, on Wednesday, the accounts showed—Balance carried over from last meeting, 858*l.* 3s. 7d.; copper ores sold, 2517*l.* 7s. 7d.; tin ores sold, 338*l.* 5s. 9d.; advance on tribute received, 200*l.*=3913*l.* 16s. 11d.—Cost for February and March, 2550*l.* 16s.; royalty, 179*l.* 7s. 3d.; advance on tribute, 210*l.*; boundary cost, 155*l.*; sundries, 21*l.* 2s. 10d.: leaving balance, 797*l.* 10s. 10d. The balance, and the proceeds of sales of ore not at maturity, amounting to 2682*l.* 19s. 11d., applicable for the general purposes of the adventure, were carried over to next account.

At the St. Day United Mines meeting, on May 17, the accounts showed a debit balance of 4315*l.* 1s. A call of 10s. per share was made. Capt. John Richards was elected a member of the committee. The report of the agents stated that but for the serious drop in the price of tin they would have been able to present a much better report, as this had considerably affected the value of their bargains, but the prospects in the bottom of the mine were very encouraging, and they thought there was a chance of great success in continuing the cross-cuts to intersect the different lodes.

At the Devon and Cornwall United Mines meeting, on Tuesday, the accounts showed a credit balance of 42*l.* 19s. 10d. The liabilities exceeded the assets by 509*l.* 17s. 10d. Capt. H. James, in a special report, stated that he found from the manager that the committee had given instructions to suspend all operations that could not be worked at a profit, at the same time to have due regard to the future of the mine. In this, he believed, they had done perfectly right. From the fact of having water power to pump the water from the mine at a very trifling expenditure, he should wait for a few months, when there will be every chance of getting a better standard for the copper, and he believed with the same operations now carrying on (if the ore continues in the 34 east) that the working cost of the mine can be paid without infringing on the reserves to any great extent. The prospects in the western part are not so good as when he last inspected. The report of the manager stated that the present scale of operations would enable them to meet the cost, and at the same time open out good reserves of ore, to be operated on advantageously. The retiring directors were re-elected.

At Cape Cornwall Mine meeting, on May 19 (Mr. H. L. Phillips in the chair), it was unanimously agreed to increase the capital of the company by the issue of 3000 new shares of 3*l.* 10s. each. As will be seen by the details (which appear in another column), the mines continues to progress satisfactorily. Referring to the western part, the Chairman states that it is the opinion of all practical men that it must prove a great and valuable copper mine, basing their opinions upon the irrefragible fact that neither in Levant nor Botallack was success realised under any conditions different from those existent in Cape Cornwall. Details in another column.

The Rosewall Hill and Ransom United committee, in order to save the expense of a general meeting, have issued a statement of accounts and report, dated May 18, for the three months ending December. The statement shows a sale of 32 tons of black tin, realising 1557*l.*, making a loss on the quarter of 69*l.* 6s. 3d. The prospects of the mine are considered as very encouraging.

At Maudlin Mine meeting, on May 18 (Mr. R. M'Connell in the chair), the accounts showed a debit balance of 1300*l.* A call of 5s. per share was made. Details in another column.

At St. Ives Consols meeting a call of 20s. per share was made.

At Nangiles meeting a call of 25s. per share was made.

At the Great Barrier Land, Harbour, and Mining Company (ninth ordinary) meeting, to be held on May 31, the report of the directors, to be submitted, states that Mr. Wright, a member of the board, sailed for New Zealand in the autumn of last year, and arrived there at the end of December. He had no opportunity of proceeding to the Great Barrier Estate till about the middle of January, and by the February mail he wrote shortly with reference to the company. The mail leaving Auckland in March has brought no advices from him, but the directors have reason to believe that he was then again busily engaged in examining the property. The directors have not, therefore, received as yet such information from him as to enable them to form any definite opinions and conclusions respecting the affairs of the company, or to advise as to the best course to be adopted for the benefit of the shareholders. The directors propose to hold this meeting only formally, and at once adjourn it to a convenient day in the last week of July, by which time two further mails will have arrived. The directors believe the shareholders will approve of this course, as it will be more satisfactory to discuss matters when in the possession of full information, and still more so in the presence of Mr. Wright, whose return may be looked for in a short time.

On the Stock Exchange a limited amount of business has been transacted in Mining Shares during the week. The following quotations were officially recorded in British Mining Shares:—Chiverton, 6⅞, 6⅞, 6; Great Wheal Vor, 16⅞, 17, 16⅞, 16⅝, 17; Great Laxey, 21¼, 21¼, 21⅜; East Caradon, 5⅞.—In Colonial Mining Shares the prices were:—Scottish Australian, ⅜, ⅞, ⅜; Yudanamutana, ¼; Cape Copper, 10.—In Foreign Mining Shares the prices were:—Frontino and Bolivia, ⅞; St. John del Rey, 53, 51, 50, 48; United Mexican, 1⅞, 2; Chontales, 3, 3⅛, 3; Cobre, 14, 13; Washoe, 1.

The Bank of England return for the week ending on Wednesday evening was by no means unfavourable, although it affords evidence the panic was continuing to exercise an influence. With the sole exception of a decrease of less than 500,000*l.* in the coin and bullion in both departments, there is no unsatisfactory change. In the ISSUE DEPARTMENT there has been a decline in the notes issued of 551,390*l.*, which is represented by a corresponding decrease in the gold coin and bullion on the other side. In the BANKING DEPARTMENT there is, on the liability side, an increase in the "rest" of 42,465*l.*; an increase in the "public deposits" of 58,542*l.*; an increase in the "other deposits" of 170,245*l.*; and an increase in the "seven day and other bills" of 21,301*l.*=292,553*l.*, which is represented on the asset side by an increase in the "other securities" of 107,174*l.*; leaving an increase in the reserve ("notes" 100,035*l.*, and "gold and silver coin" 85,371*l.*) of 185,406*l.*; the total now being 1,388,216*l.* The minimum rate of discount remains at 10 per cent.

IMPORTS OF GOLD.—According to Messrs. W. C. Sillar and Co.'s Bullion Circular, the Australian gold ships for England known to be at sea are—the Lucibelle, with 3000*l.*; the Red Rover, with 30,000*l.*; the Sussex, with 136,000*l.*; the Red Jacket, with 45,000*l.*; the Golden Sea, with 13,000*l.*; the Walter Hood, with 44,500*l.*

MINING CAPTAIN.—The ADVERTISER, a competent and practical Mine Manager, WISHES for a SITUATION at home or abroad. He has filled a situation in the above capacity at home and foreign for a great many years, or would undertake the survey and inspection of any mining property in any part of the world. References given of the highest respectability.—Address, "H. P.," MINING JOURNAL office, 26, Fleet-street, London.

WANTED IMMEDIATELY, a PRACTICAL MANAGER of HEMATITE BLAST FURNACES. It is indispensable that he be thoroughly experienced in the working of hematite ores when smelted alone. A thoroughly qualified man will be most liberally dealt with.—Apply by letter, to T. K. EDWARDS, Esq., solicitor, 5A, Cloak-lane, London, E.C.

WANTED,—A PARTNER, who could invest £2000, to JOIN a COMPANY (at present in full work) to more FULLY DEVELOPE an IRON ROYALTY consisting of 2000 acres, situate in the best hematite iron district in the North of England, which also contains roofing slate and slate flag of fine quality and abundant quantity. There is also a large deposit of clay, which the company are at present making into bricks, tiles, &c., which have a large demand in the neighbourhood. The royalties, as above, have been secured for 21 years, on very favourable terms, from the lessor, and offers a certain and lucrative investment.—Further particulars may be had on application to "J. K.," box 59, Whitehaven.
None but principals will be treated with.

WANTED, THREE CONDENSING LOW PRESSURE BEAM ENGINES, with BOILERS complete, for winding and pumping purposes; power 15, 25, and 30 horse respectively.—Apply to Captain E. SPARGO, Gadur Mines, near Holyhead.—May 24, 1866.

EL CHICO SILVER MINING AND REDUCTION COMPANY, MEXICO.—WANTED, an OFFER for FIFTY SHARES (fully paid up), in lots of ten each.—Address, "Paid-up," MINING JOURNAL office, 26, Fleet-street, E.C. For particulars, as to the mine, &c., apply personally, or by letter, to the Secretary, 29, Threadneedle-street.

THE ADVERTISER would be glad to EXCHANGE the "MINING JOURNAL" for "HERAPATH'S," "RAILWAY TIMES," or OTHER COMMERCIAL PAPER. To be posted Monday or Tuesday evening.—Address, "Finance," MINING JOURNAL office, 26, Fleet-street, London, E.C.

TO COLLIERY AND ESTATE PROPRIETORS.—A GENTLEMAN, who has had several years part proprietorship and the active management of an important colliery in the Midland Counties, from which he has recently retired, and who is perfectly conversant with Land and Mine Surveying and the practical working of collieries, is DESIROUS of MEETING with an ENGAGEMENT. Ample references will be given.—Apply to Messrs. WOODHOUSE and JEFFCOCK, Mining Engineers, Derby; or to Messrs. COLDICOTT and CANNING, Solicitors, Dudley.

A GENTLEMAN, of considerable experience in Mining, OFFERS his SERVICES to a COMPANY or PRIVATE PARTY to EXPLORE the MINERAL RESOURCES of any FOREIGN COUNTRY. Can assay the different metals. References to the most eminent mining engineers in Devon and Cornwall.
Apply to "Miner," MINING JOURNAL office, 26, Fleet-street, London.

A GENTLEMAN having an extensive connection with Merchants, Manufacturers, and others, would be GLAD to UNDERTAKE the SALE of PATENTED ARTICLES or INVENTIONS, on commission.—Apply to Mr. W. T. KAWLE, patent and mining agent, 8, Small-street, Bristol.

PORTABLE ENGINES, with PIT WINDING GEAR.—Portables in stock up to 14-horse power. Gear to order to suit circumstances.—Apply to BARROWS and CARMICHAEL, engineers, Banbury, Oxon.

FOR SALE, a 40 in. cylinder PUMPING ENGINE, with a 10 ton CORNISH BOILER, nearly equal to new. A WATER-WHEEL, 25 ft. diameter and 3 ft. breast, with iron axle, saddles, gun-metal bearings, iron segments, sockets, &c., all in capital condition.—For prices, apply to NICHOLLS, WILLIAMS, and Co., engineers, Tavistock.—May 24, 1866.

FOR SALE, a 36 in. CONDENSING PUMPING ENGINE, low pressure, 9 ft. stroke in cylinder, with CORNISH BOILER (St. Austell Foundry, 1854), together with all the MATERIALS in immediate connection therewith, viz.:—Capstan, pulleys, brasses, chains, pumps, &c.—Apply to Mr. J. THOMAS, Llwyncelyn Cottage, Llandovery.

India Office.

BY ORDER OF THE SECRETARY OF STATE FOR INDIA IN COUNCIL, notice is hereby given that the DIRECTOR-GENERAL OF STORES FOR INDIA will be READY, on or before MONDAY, the 28th inst., to RECEIVE PROPOSALS in writing, sealed up, from such persons as may be willing to supply—
100 TONS of SLIP COPPER.
And that the conditions of the said contract may be had on application at the India Store Office, Cannon-row, Westminster, where the proposals are to be left any time before Two o'clock P.M., of the said 28th day of May, 1866, after which hour no tender will be received. GERALD C. TALBOT, Director-General.
India Office, May 21, 1866.

METROPOLITAN DISTRICT RAILWAY COMPANY—NOTICE.—The REGISTRATION and TRANSFER OFFICES are now REMOVED from Austin Friars to the company's offices, No. 6, WESTMINSTER CHAMBERS, VICTORIA STREET, WESTMINSTER.
All stock and scrip holders are requested to send information as to change of address, 14 days previous to the issue of the interest warrants due on the 1st of July next.
6, Westminster Chambers, Victoria-street, S.W. GEO. HOPWOOD, Sec.

ANGLO-MEXICAN MINT OFFICE.—The Directors of the Anglo-Mexican Mint Company beg leave to notify to the shareholders that a DIVIDEND will be PAYABLE at the office, as below, on and after Saturday, the 2d June next. Claims to be made (printed forms of which may be obtained at the office) two clear days previous to payment. Attendance, Eleven to Three o'clock.
4, Finsbury-place South, May 23, 1866. ALFRED GODFREY, Sec.

THE WEST CANADA MINING COMPANY (LIMITED).—Notice is hereby given, that the SEVENTH ORDINARY GENERAL MEETING of the shareholders of this company will be HELD at this office, on WEDNESDAY, the 30th day of May inst., at Two o'clock in the afternoon precisely, to receive the reports and accounts for the year ending 31st December, 1865, and for general purposes, as authorised by the articles of association. Two directors—viz., James Hutchinson, Esq., and Osmond de B. Priaulx, Esq.—will retire from office at this meeting by rotation. They are both eligible, and purpose offering themselves for re-election. The auditor, Joseph George, Esq., will also retire from office, but will offer himself for re-election. By order of the Board,
W. G. WILLIAMS, Secretary.
5, Queen-street-place, London, E.C., May 22, 1866.

WHEAL NORTH GRYLLS MINING COMPANY (LIMITED).—Notice is hereby given, that an EXTRAORDINARY GENERAL MEETING of the Wheal North Grylls Mining Company (Limited) will be HOLDEN at No. 5, Broad Sanctuary, Westminster, on FRIDAY, the 8th day of June next, at half-past Two o'clock in the afternoon, when resolutions requiring the company to be wound-up voluntarily, and for the appointment of liquidators, or a liquidator, for the purpose of winding-up the company and distributing the property thereof, will be submitted to the members present personally or by proxy. J. H. REACHER, Secretary.
Worcester, May 24, 1866.

WASHOE AND REESE RIVER MINES.—The UNDERSIGNED, being established in GOLD HILL, near VIRGINIA CITY NEVADA, as MINING SURVEYORS, CHEMISTS, and ASSAYERS, OFFER THEIR SERVICES to MINING COMPANIES and GENTLEMEN in ENGLAND, having interests in the above-named districts.
Mines examined and reported on, at a scale of charges which obviously ensures a large saving upon the costs (in fees and travelling expenses) of special agents sent from England. Telegrams (arriving from London in 14 days) promptly attended to.
W. T. RICKARD, F.C.S., M.G.A., &c. (late Mitchell and Rickard, London).
CONRAD WRIGAND (late Supervising Assayer of the United States Mint, San Francisco).
London Agent:—T. W. Burr, Esq., 12, Paternoster-row.

FIRST-CLASS PORTABLE ENGINES, of 8 and 10-horse power (with or without link-motion reversing gear), specially adapted for ECONOMY in the CONSUMPTION of FUEL, and READY for IMMEDIATE DELIVERY.—Particulars on application to BADGER and SON, Engineers, Rotherham.

SILVER-LEAD ORE.

Sold by tender, by Messrs. James and Shakespeare, on May 25, from Australia.

Mine.	Tons.	Price per ton.	Purchasers.
Wheal Coglin	10½	£14 1 6	Locke, Blackett, & Co.
ditto	19	15 12 6	ditto
Glen Osmond	2½	10 0 0	Panther Co.
ditto	2½	10 0 0	R. Michell & Son.
Wheal Coglin	20	13 2 0	ditto
ditto	6½	10 15 0	ditto

LEAD ORES.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
May 4—	Minera	101	£13 15 6	Walker, Parker, & Co.
—	ditto	101	13 15 6	ditto
—	ditto	64	13 15 6	ditto
—	ditto	81	13 15 6	ditto
—	ditto	23	13 15 6	ditto
17—	Bronfloyd United	40	14 4 6	Mining Co. of Ireland.
22—	Isle of Man Mining Co.	100	23 12 0	Sims, Willyams, & Co.
—	Harwood Mining Co.	50	13 7 6	London Lead Co.
24—	Bryngwyn	4	13 4 0	Newton, Keates, & Co.
—	ditto	2	15 18 6	Walker, Parker, & Co.
—	Hendre Ucha	6	13 5 6	ditto
—	Summer Hill	3¾	13 8 6	A. Eyton.
—	ditto	1¼	15 18 6	ditto
—	North Henblas	11	12 16 6	ditto
—	ditto	3	4 10 6	Newton, Keates, & Co.
—	Dog Pit	13	12 3 0	ditto
—	Pool Park	20	14 3 6	Walker, Parker, & Co.
—	Llanerchyraur	15	13 8 6	A. Eyton.
—	Llangynog United	39½	12 14 6	ditto
—	Bwlhcoch	10½	12 15 6	Walker, Parker, & Co.
—	Roman Gravels	25	13 8 6	A Eyton.

BLENDE.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
May 4—	Minera	103	£ 5 3 0	Vivian and Sons.
—	ditto	68	4 19 0	ditto
—	ditto	34	5 2 6	H. Southern.
—	ditto	20	5 7 0	Vivian and Sons.

COPPER ORES.

Sampled May 9, and sold at the Royal Hotel, Truro, May 24.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
South Caradon	92	£4 9 6	Great Wheal Busy	33	£1 13 6
ditto	91	6 6 6	ditto	21	2 5 0
ditto	80	4 10 0	ditto	2	26 11 0
ditto	73	6 7 6	Phœnix Mines	86	2 0 6
ditto	59	11 15 6	ditto	78	1 11 6
ditto	55	13 6 0	ditto	77	2 0 0
ditto	46	13 3 6	ditto	30	1 1 6
ditto	40	11 12 6	ditto	24	5 12 0
North Treskerby	73	4 1 0	Wheal Rose	65	2 15 0
ditto	71	5 1 6	ditto	64	4 4 6
ditto	70	2 18 0	ditto	47	3 6 6
ditto	66	4 6 0	ditto	44	5 7 6
ditto	52	6 5 6	West Caradon	54	3 12 0
ditto	50	4 14 6	ditto	44	5 13 0
ditto	49	4 12 6	ditto	35	6 10 6
Clifford Amalgamated	81	2 0 6	ditto	16	2 4 6
ditto	64	1 6 6	ditto	12	0 11 6
ditto	58	2 14 0	St. Day United	29	5 2 6
ditto	54	1 14 6	ditto	23	2 16 0
ditto	52	4 1 0	ditto	1	15 6 0
ditto	48	3 5 0	Craddock Moor	24	6 12 0
ditto	19	3 7 6	ditto	20	4 1 0
Great Wheal Busy	88	1 15 6	North Downs	40	4 5 0
ditto	71	2 5 0	Durrieu's Precipitate	11	21 3 6
ditto	53	1 13 6	ditto	3	12 0 0
ditto	46	2 4 6			

TOTAL PRODUCE.

South Caradon	536	£4309 18 6	West Caradon	161	£ 713 17 6
North Treskerby	431	1931 19 0	St. Day United	53	228 6 6
Clifford Amalgam.	376	929 6 0	Craddock Moor	44	259 8 0
Great Wheal Busy	314	662 14 0	North Downs	40	170 0 0
Phœnix Mines	295	617 13 0	Durrieu's Precipit.	14	268 18 6
Wheal Rose	220	841 18 6			

Average Standard..... £104 0 0 | Average Produce 6⅞
Average Price per ton £4 8 0
Quantity of Ore ..... 2484 tons | Quantity of Fine Copper, 170 tons 12 cwts.
Amount of Money £10,913 19 6
LAST SALE.—Average Standard..... £115 2 0.—Average Produce 5½
Standard of corresponding sale last month, £110 12 0.—Produce, 6⅜.

COMPANIES BY WHOM THE ORES WERE PURCHASED.

Names.	Tons.	Amount.
Vivian and Sons	421½	£1784 16 4
Freeman and Co.	134	859 11 6
Grenfell and Sons	221½	1087 14 4
Sims, Willyams, and Co.	178½	685 12 7
Williams, Foster, and Co.	212½	1498 3 0
Mason and Elkington	378 5-6	1428 5 7
Bankart and Sons	163½	1324 0 10
Copper Miners' Company	126½	823 1 3
Charles Lambert	361½	723 7 6
Sweetland, Tuttle, and Co.	217	1045 6 0
Penclawdd Copper Co.	15½	68 12 4
Hadland and Co.	54	93 3 0
Total	2484	£10,913 19 6

Copper ores for sale at Truro, on Thursday next.—Mines and parcels.—Wheal Seton 1146—Clifford 800—West Seton 472—West Tolgus 300—So. Crofty 255—Fowey Consols 190—Wheal Basset 177—East Basset 153—East Pool 147—Dolcoath 102—Bampfylde 90—Tincroft 76—Pendarves United 26—North Pool 16—South Wheal Basset 11.—Total, 3961 tons.

Copper ores for sale at Tyack's Hotel, Redruth, on Thursday week.—Mines and parcels.—Prosper United 331—Carn Brea 303—East Carn Brea 170—Par Consols 167—West Basset 136—Great South Tolgus 128—Rosewarne United 126—Mellanear 57—Rosewarne Consols 46—South Carn Brea 23—South Dolcoath 16.—Total, 1503 tons.

WATSON AND CUELL'S MINING CIRCULAR.

WATSON AND CUELL,

MINING AGENTS, STOCK AND SHARE DEALERS, &c.

1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON.

MESSRS. WATSON AND CUELL having made arrangements for transferring their weekly Circular, which has had so large a circulation during the past ten years, to the columns of the *Mining Journal*, their special reports and remarks upon Mines and Mining, and the state of the Share Market, will in future appear in this column.

In the year 1843, when Cornish mining was almost unknown to the general public, attention was first called to its advantages, when properly conducted, in the "Compendium of British Mining," commenced in 1837, and published in 1843, by Mr. J. Y. WATSON, F.G.S., author of "Gleanings among Mines and Miners," "Records of Ancient Mining," "Cornish Notes" (first series, 1862), "Cornish Notes" (second series, 1863), "The Progress of Mining," with statistics of the Mining Interest, annually for 21 years, &c., &c. In the Compendium, published in 1843, Mr. WATSON was the first to recommend the system of a "division of small risks in several mines, ensuring success in the aggregate," and Messrs. WATSON and CUELL have always a selected list on hand. Perhaps at no former period in the annals of mining has there been more peculiar need of honest and experienced advice in regard to mines and share dealing than there is at present; and, from the lengthened experience of Messrs. WATSON and CUELL they are emboldened to offer, thus publicly, their best services to all connected with minesor the marke, as they have for so many years done privately, through the medium of their own Circular.

Messrs. WATSON and CUELL transact business in the purchase and sale of mining shares, and other securities, payments of calls, receipt and transmission of dividends, obtaining information for clients, and affording advice, to the best of their knowledge and judgment, based on the experience of more than 30 years active connection with the Mining Market.

Messrs. WATSON and CUELL also inform their clients and the public that they transact business in the public funds, railway, docks, insurance, and every other description of shares dealt in on the Stock Exchange.

Messrs. WATSON and CUELL are also daily asked their opinion of particular mines, as well as to *recommend* mines to invest or speculate in, and they give their advice and recommend mines to the best of their judgment and ability, founded on the best practical advice they can obtain from the mining districts, but they will not be held responsible, nor subject to blame, if results do not always equal the expectations they may have held out in a property so fluctuating as mining.

Messrs. WATSON and CUELL having agents and correspondents in all the mining districts, and an extensive connection among the largest holders of mining property, have the more confidence in tendering their advice on all matters relating to the state and prospects of mines and mining companies, and are enabled to supply shares in all the best mines at close market prices, free of all charge for commission.

PRINCE OF WALES.—It will be seen that the ore last week sold, considering the standard, at an extraordinary price; 50 tons realised, with carriage, close upon 500*l*. The ore computed at 6 tons, at 10*l*. 17s. 6d., was, as we stated prior to the sale, 10 tons—making the whole 50 tons, instead of 46 tons. We understand a considerable amount of dissatisfaction has been expressed in certain quarters that the committee did not purchase a large rotary engine, both for pumping and drawing, and, of course, at a very great expense; but they acted on the advice of one qualified to decide in the matter, and bought a pumping-engine, capable of taking the shaft down 60 fms. deeper than the present bottom level, and it will take some years to get there. Up to this time the pumping has been done by a 30-ft. water-wheel, and the stuff drawn to surface by a horse-whim. When the pumping-engine has been erected the water-wheel will be used for drawing stuff, and should the water at any time fail the horse-whim would be continued. Steam-power to do all these things would, of course, have been best, but it would have entailed a heavy outlay upon the shareholders, which the committee were anxious to avoid, especially as it was not necessary. Many of our readers will bear us out in the statement that much loss has been incurred in mines by an injudicious and unnecessary expenditure in machinery, for which, on a large scale, agents and engineers seem to have a great predilection. We could name a mine now about to be stopped, upon which more than 3000*l*. have been spent in machinery and plant, and now there is no ore to return. At Prince of Wales we have proved the value of the mine at as small an outlay as possible, and wish to go the best and most economical way to work it, and to consult the interests of shareholders rather than of those who have machinery to sell. As soon as it was known that the committee had decided upon steam-power it is astonishing what a touching interest founders, engineers, and those who had engines for sale took in the welfare of the mine all at once. Rotarys, pumpers, whimsies, and "whims," of all sorts and sizes, were offered to and pressed upon the committee; but the lowest price of most of them was more than treble that of the engine which the committee purchased; first, because they were assured it was capable of taking the mine down to the 100 fm. level; second, on account of its cheapness, its easy distance to carry, and the long credit given for payment. And as by this arrangement they have saved a considerable sum to the company, they must be prepared to hear their purchase freely canvassed and commented upon by those disappointed of a sale or of a job. Holding as we do nearly one-sixth of the mine, our confidence in its great and early success is such that personally we should have been willing to have paid a call of treble the amount for more extensive machinery if we thought it had been necessary; we believe, however, that what has been done will enable us to get good dividends, and pay for all machinery that may be required as the mine progresses, out of the profits of the mine, instead of the pockets of the shareholders.—May 25: After we had written the above remarks, we thought it might be more satisfactory to the shareholders generally to have a practical opinion on the point in dispute, and we requested Mr. Jehu Hitchins to meet Mr. Matthews, the engineer, on the mine last Wednesday, and to go thoroughly into every matter connected with the machinery. This he has done, and upon his return this morning assured us that "if the whole mine were his own, he should carry out the plan of the committee." He adds that the engine purchased will take us down 100 fms. with ease, and pump a large quantity of water, to assist the wheel when short, for drawing.

CHONTALES.—A correspondent thinks we rather misquoted the directors' circular last week. We quoted from memory, and do not after all see that we were far wrong. We said the directors circulated a report a few weeks ago wherein they thought it might take eight months to get into regular working order, supposing that nothing occurred to delay the machinery in its transit to the mines. Our correspondent says, however, the directors said that "within six or eight months from the period they wrote (April 14) they hoped regular returns might be expected." The only real difference is, therefore, that we said eight months instead of "six or eight months;" and anyone reading Capt. Paull's report, in last week's Journal, must come to the conclusion that "regular returns" cannot be made until the mines are "in regular working order," and that they cannot be in "regular working order" until the machinery has been carted up to the mines and erected. We have as much aversion as our correspondent can have to the system of "bearing" which generally prevails; and, if he will also read our remarks of last week again, he will find that we endorsed the strongest opinions yet written in favour of the mines, which, for riches, we believe are unsurpassed. Our answers were given to enquiries strictly in reference to the share market, looking to the panic in shares generally, and its probable temporary effect on Chontales shares when the "bear" account was closed.

"A PURCHASER."—As soon as the Stock Exchange Committee name a settling-day transfers of Mineral Rights will be made.

INVENTORS AND INVENTIONS.—It has frequently been asserted in the Journal that the complaints of inventors against the Patent Laws are quite as numerous as those of other parties, and that almost the sole persons benefitted by their existence are those who make a business and a livelihood by appropriating the inventions of others. A pamplet, which will be read with much interest by inventors who have failed to obtain a fair reward for their labour, has just been issued by Mr. C. Schiele, the well-known inventor of improvements in turbines, &c., in which the accuracy of this view is fully confirmed. His advice to inventors under the present law is to keep their invention secret if possible, and to take no patent. He observes that no other person can prevent you from using your own invention if the date of his patent is later than the date of your first using it. He seems to consider, moreover, that practically the inventor can hope for no advantage from the attempt to enforce his rights at law or in equity, and this is doubtless the general experience. The pamphlet is published at Frankfort-on-the-Maine.

MINING LITERATURE.—Amongst the recent additions to mining literature in the New World, the *American Journal of Mining* is worthy of especial mention; it is to mining and the allied sciences, so extensively carried on in the United States, what the *Scientific American* is to the mechanical sciences generally. The paper and printing are far superior to the ordinary newspapers of the States, and both skill and judgment are displayed in the editorial department. Six numbers have already appeared, and the same amount of care is apparent in all.

LIABILITY AS CONTRIBUTORY.—The case of the Anglesey Colliery Company (Limited), was where, under section 133, clause 9, of the Companies Act, 1862, liquidators, under a voluntary winding-up, had made a call of 1*l*. per share to enable them to adjust the rights of the contributories amongst themselves, and given the usual notices to that effect to the shareholders who had fully paid up all the previous calls in respect of the shares held by them. It was held by Vice-Chancellor Wood that the paid-up shareholders were not exempt from the payment of such call, and were, under the construction of the Act of Parliament, to be considered as contributories and members of the company equally with all other members of the company.

TRUSTEES' EXPENSES.—The Master of the Rolls has decided, in *re* the Exhall Coal Mining Company (Limited) that the right of a trustee of a company to be recouped, out of any property of the company in his hands, expenses properly incurred by him as trustee, is an inherent right in him as such trustee, and will be satisfied out of a fund in Court in priority to claims made thereto by debenture holders of the company, subject only to the payment out of the fund of costs properly payable thereout. The case was heard upon an application for an order for the payment to a Mr. Bleckley of a sum of 1016*l*., or so much thereof as might be necessary to recoup him certain expenses incurred as trustees of the above-named company. The fund arose from the sale of some fixtures, the property of the company, and the order asked for was resisted by the debenture-holders of the company.

PROMISSORY NOTES.—Although the payee of a promissory note must be a person certain, a note will be bad for being payable in the alternative if both parties are in the same interest, as in the case of Holmes *v.* Jaques, where a note was made payable to the trustees of a chapel, "or their treasurer for the time being." This, it was held by the Court of Queen's Bench, did not make the payee uncertain, and it was a promissory note within the meaning of the statute of Anne. The Lord Chief Justice: "I fully concur in the proposition that the payee of a promissory note must be a person certain. But all that this promissory note shows is, that it is payable to the trustees in the first instance, but with the option of the payer to pay the treasurer as their agent. The treasurer would have no authority to sue; all the authority which he derives from the note is to receive the amount. All that is meant is, that the defendant is to pay the trustees or the treasurer on their behalf. If we are to construe this note differently, we should be introducing unnecessary strictness, and be defeating justice."

A DIAMOND exhibiting some remarkable physical changes has recently been brought, by M. Frémy, under the notice of the Académie des Sciences of Paris. This diamond weighs about 60 grains, and, at ordinary temperatures, is of a slightly yellow colour. When, however, it is submitted to the action of an elevated temperature, it acquires a rose tint, which it preserves for several days, resuming gradually its normal yellow tint. The ordinary price of a diamond of this weight would be about 60,000 frs.; with the rose colour, if this were permanent, the value would be, at least, tripled. This peculiar change having been observed, it may be quite legitimate to ascertain if any other diamonds possess this peculiarity of change of colour.

Notices to Correspondents.

** Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be regularly *filed* on receipt: it then forms an accumulating useful work of reference.

VENTILATION OF MINES.—Often in your leading article, and still more frequently in your correspondence, I find it mentioned that one of the chief desiderata in mining enterprise is the discovery of some simple, cheap, and effectual system of ventilation which shall ensure an abundant supply of fresh air to the men at the bottom of shafts, or in the dead end of levels, &c., without necessitating any disturbance to the ordinary working arrangements of the mine. This is a scientific problem, which requires a practical solution. I believe that I have found that solution; but although I have studied and practised science and scientific experiments for many years, it has always been in an amateur way, and I have neither professional nor personal acquaintance with mines or mine owners. At the same time one feels anxious to utilise an idea, which seems to promise so well, both as a public benefit and commercial source of profit. If any of your correspondents can tell me how to proceed—that is, in what quarter I can, with any chance of a fair investigation, develope my "system"—I shall be much obliged by the information.—J.

EXHAUSTION OF OUR COAL FIELDS.—The rate at which the exhaustion of our coal fields is going on has been incorrectly stated at 96,000 acres, of 1 yard in thickness, per annum. The present production, taken upon the very outside estimate, does not exceed 96,000,000 tons per annum, the corresponding acreage of which would be, in round numbers, 21,000 acres, 1 yard in thickness; but the 96,000,000 tons is arrived at by the roughest estimation, and is generally considered to be fully 10 per cent. too high.

NANT-Y-IAGO.—I observed in the Journal of May 12 that this mine sold 42 tons of lead. Having been a shareholder, I was under the impression that the mine was stopped, and being liquidated: if so, I shall be much obliged if any reader will favour me with the result of the liquidation through the Journal. I presume the mine (if the same) is being wrought by a new company.—A SHAREHOLDER.

THE TIN TRADE.—Having been a reader of the Journal for many years, and being interested in mining, I am sorry to see the present low price of metals, especially tin. I was, therefore, pleased with the letter in the Journal of May 12, and think, if the present low price is either caused by the production being greater than the demand, or if from any other cause so much the better, the only true way to bring about a reaction is simply by limiting the returns, and by introducing every possible economy in the working to reduce the expenses. I think this should be enforced by shareholders in all mines having their own true interest at stake, and willing to wait rather longer, if need be, than to make the present to pay for the future.—J. B.

THE MINING JOURNAL

Railway and Commercial Gazette.

LONDON, MAY 26, 1866.

THE COAL PANIC.

Much has lately been said on the enormous and increasing consumption of coal, and fears have been expressed of the comparatively speedy exhaustion of our coal fields. Spasmodic panics of this kind have occurred ever since the year 1792, at intervals of from 10 to 20 years from each other; and it is probable that they will continue to recur whenever there is a dearth of subjects for discussion in our learned societies, or the want of an attractive topic impels the man of science to have recourse to this "thrice told tale." It is a curious, as well as a remarkable, incident that these coal panics have invariably originated in the abstract speculations of learned men, unconnected in any way with coal mining or the coal trade. So far, therefore, we may give them credit for disinterestedness, for it is clear they will not be pecuniarily benefited or injured by the disturbing influences they set in motion. But how is it that those gentlemen whose whole lives have been devoted to the study of the subject, and whose fortunes are inextricably involved in collieries and the coal trade, should remain passive observers merely, and leave the discussions on subjects which to them are so vitally important to the amateurs of the day? The present coal panic is distinguished above its predecessors in consequence of the patronage extended to it by Her MAJESTY'S Ministers and the House of Commons, as well as by the daily press. To quiet the alarmists, the CHANCELLOR of the EXCHEQUER told the House a few days ago that the subject had been referred to Sir R. MURCHISON and his staff of able coadjutors in the Museum of Economic Geology. Without in the least degree questioning the great scientific attainments and distinguished abilities of these gentlemen, it must be admitted, even by themselves, that they are devoid of that practical experience in coal mining which is essential to a thorough investigation of the subject. Some of them, too, have already committed themselves in print as to the remaining resources of our coal fields, and have expressed opinions which have not met with universal concurrence. The puzzle is, however, not so much as to the quantity of coal remaining unworked, but as to the means to be pursued to conserve it for the future. To limit the quantity produced would be too quixotic for even the most panic-stricken of Her MAJESTY'S subjects. The day is past for imposing export duties, and the whole population of the United Kingdom would strenuously oppose a duty on its home consumption. A proposition to compel the British and mercantile navy to abandon the use of coal, and have recourse to wind, as in times of old, would be met with ridicule and contempt.

Some wise men tell us, and tell us truly, that in steam and anthracite coal there is a great and wilful waste; that a great portion of the small coal is "gobbed," or left among the rubbish underground; and a large quantity, also, is "brought to bank," and thrown on the pit-heap with the shale and other rubbish, and that all this small coal is irrecoverably lost. This has been, and continues to be, a fruitful theme for virtuous indignation. The colliery owners have been censured in no milk-and-water terms for this shameful and extravagant waste; yet those who have been so eloquent in their denunciations have failed in ever suggesting a means by which this admitted evil can be remedied. If people will not buy it even at cost price what else can be done with it? It is pure nonsense to talk about compelling colliery owners to produce this coal on the surface in a marketable state unless you can find him purchasers for it. Of late years a portion of it has been converted into patent fuel; but the market for this, also, is a limited one, and consumes but an inconsiderable quantity. Small steam coal is unsuited for domestic purposes as well as for manufactures; and the great and increasing demand for large coal renders the waste unavoidable.

Now, supposing that the enquiry as to the rapid exhaustion of our coal fields be proved to the fullest extent of the alarmists, what rational remedy can be applied? Any attempt to limit the supply would most undoubtedly paralyse our commerce, manufactures, and means of conveyance; nor can you make that marketable which people will not buy either in its original or in a converted state. There is an old proverb which says that you cannot both eat your cake and have it. There is no doubt but that at the present rate of consumption exhaustion must occur some day or other, and that it will be preceded by a gradual advance in the price of coal. Whether this occurs in 500 or 5000 years hence, come it must some day or other, but we are not among those who anticipate its early advent; yet it is a "coming event," which will certainly "cast its shadow before." A failure in the whale fishery, and the consequent high price of lamp oil, gave us gas. Necessities impel discoveries; and when the time arrives we may rely upon it some other agent than coal will be introduced to do its work, as far as motive power is concerned; this was the deliberate opinion of the late ROBERT STEPHENSON. Who is there that looks back on the wonderful advance which has been made in practical science during the last fifty years, and bears in mind the accumulated and increasing stores of knowledge that have been hived for the use of generations to come, can doubt of the future of his country? When the exigencies arrive, discoveries will keep pace with them. Coal may be exhausted, but under a wise and good Government the commerce and manufactures of Great Britain are indestructible.

OUR COAL SUPPLY.

[FROM A CORRESPONDENT.]

But a little more than six centuries ago our coal trade had no existence! During, however, that comparatively limited period of time the industrial pursuits, and continuingly increasing requirements of civilised life, have been so vast and various, that most fearful inroads have at length been made on the resources or our known or superficial coal fields. So apparent has this fact become within the last half century to those who have paid any attention to the subject, and especially to the practically instructed, that many earnest calculations have been entered into from time to time in order to exhibit the probable duration of our coal beds. The estimates of the earlier prognosticators were necessarily based on but partial and insufficient data, hence were they often led to promulgate notions of their duration extending to one or more thousand years. But, as exploration extended, pits were sunk deeper, and the actual capacities of the respective coal deposits became known to investigators, these calculations began to assume the character of self-evident truths. This new feature in the enquiry, coupled with our present amazing consumption in the aggregate, every year rapidly on the increase, has naturally awakened public attention to the subject, as one of vast and vital national importance. Looking at the question in its present state and prospective bearings, we are inclined to believe that a period of from 200 to 300 years for the exhaustion of our known coal fields, as given by Sir WILLIAM ARMSTRONG and Mr. GREENWELL, is more to be depended on than most of the other computations which have been published.

If such is but an approximation to the truth, it is high time to institute the most searching enquiries into the whole matter; and we cannot but hail with unfeigned satisfaction the labours of the proposed Royal Commission, especially as the point raised by Mr. HOLDSWORTH (as exemplified in his interesting and valuable little work on the "Extension of the English Coal Fields beneath the more recent deposits of the Central and Southern Counties"), is expressly specified in the terms of the motion as one of those to be reported on. Our knowledge of this important fact is derived from the first authority, and we are heartily glad of it; for, after arriving at the sad but legitimate conclusion that our noble coal deposits, are, as it were, on the eve of exhaustion, what can be of greater moment than to institute minute enquiries into the physical constitution of the unexplored districts of England, in order to ascertain the existence of new coal fields: that such do exist, and commonly at attainable depths, we think that any candid mind who notes the examples, and carefully peruses the inductive evidence Mr. HOLDSWORTH has brought scientifically to bear on this point, is worthy of every consideration.

In the course of some observations which appeared in last week's MINING JOURNAL, in reference to the early exhaustion of the British coal fields, it is stated that the Government are in correspondence with Sir RODERICK MURCHISON on the subject, and that it is probable the enquiry will be committed to the care of the Geological Survey and the Mining Record Office; the writer expressing a hope that it will, at all events, be carried forward in perfect independence of all trade interests. That no undue influences of this, or, indeed, any other character, should be brought to bear on the question, is sufficiently obvious; nevertheless, we believe it to be no less desirable that an investigation of so vital and comprehensive a nature should not be committed solely to men composing the official establishments referred to; on the contrary, the commission should be a mixed one, composed (say) partly of official and partly of lay members. These Special Schools cannot but become special evils, if they alone are to decide on questions which, like the present, involve a nation's destinies. We all know something of the dogmatising character of our close corporations of science and literature, and that opinions once received therein are clung to, often to the detriment of wholesome progress, with the utmost pertinacity. A disposition is constantly evinced to stamp the impress "authoritative" on all that emanates from these scholastic *coteries*, though, in geological departments, it must be admitted there is less of this spirit exhibited in the present day than formerly, many of its most cherished dogmas having vanished for ever before the march of scientific discovery and actual exploration.

We make these remarks in no disparagement of the excellent institutions in question, for in their several capacities, and within their legitimate province, they cannot but prove productive of the most beneficial results, in reference to the nation's best and most substantial interests. All that we maintain is, that it would be inimical to the most vital interests of the community, and a bar to the progress of important discovery, if an impression is to be widely disseminated that we are alone to look for legitimate information to these special schools.

In short, in a science of so vast and varied a field as that of geology—for the most part as yet wholly unexplored—such a principle would be simply absurd. Very many astute and close observers of natural phenomena are there located in interesting districts, and especially those whose experiences have been derived from a lifetime of actual geognostic operations and researches, whose opinions are entitled to the utmost respect and consideration, and we confess it is men of this class and calibre we should, for obvious reasons, like to see constituting an important element in the proposed Royal Commission.

THE COAL FIELD AND COAL OF SOUTH WALES.

BY JOSHUA RICHARDSON, C.E., NEATH.

The area of this coal field has been variously estimated by different authors at from 1000 square miles to 1200 square miles. In order to ascertain which of these estimates approximated most nearly to the truth, the author computed its area from the geological maps published by Mr. Knipe and by the Board of Ordnance, and found it to be 1055 square miles; and that about two-thirds of it is of a bituminous quality, and one-third anthracite, or of a non-bituminous description. The areas were taken from the inside boundary of the Millstone Grit, or Farewell Rock (as it is locally called), or its equivalent, and the results from each map were nearly coincident. This coal field commences on the east, in the county of Monmouth, and extends westward, through Glamorganshire, Brecknockshire, and Carmarthenshire, to the western boundary of the county of Pembroke. It is parallel with the Bristol Channel, the numerous harbours of which give every facility that is required for its export, and the railways that are already constructed and those at present in formation tend to lessen the expense of its carriage from the collieries to the shipping ports and markets for home consumption. The following table exhibits a recapitulation of the areas in each county of the whole coal field:

	Bituminous.	Anthracitous.	Totals.
Monmouthshire .....Square miles	110	—	110
Glamorganshire	462	84	546
Brecknockshire	—	78	78
Carmarthenshire	117	124	241
Pembrokeshire.....	—	80	80
Grand totals of square miles....	689	366	1055

From various causes there is great difficulty in correctly ascertaining the average depth or thickness of the coal; for although some of the veins or seams can be traced for a considerable distance, it yet remains to be proved that any one vein of coal extends over the whole area. Even those veins which are indisputably recognised in different localities as being identical vary so much in thickness, or are so interrupted by abrasions and gaps, produced by denudation or other remote causes, as to preclude the possibility of making any true estimate of its thickness throughout the entire basin, or even over any great portion of it. It appears from sections published by the Rev. W. D. Conybeare, and from the Ordnance Survey, exhibiting the general disposition of the strata, in a line from the north to south across this coal field, that there are two deposits of coal, which are separated from each other by a rock of considerable but varying thickness, called the Pennant Grit. The coal of the upper series is not generally equal in quality to that of the lower, and it is in the lowest shales that iron ore is found in the greatest abundance. The effects of denudation are clearly shown in these sections, particularly in the upper series; abrasions and gaps, where the coal has altogether disappeared, are occasionally to be observed. The lower series has suffered diminution from the same cause, and in some situations the loss has been very great, and there is good reason to believe that a great portion of the original deposit has long since been wasted away. This view of the subject is strikingly confirmed by the relative quantities of coal found in different places, as shown in the sections published by the Ordnance Survey, and by others in the possession of the author.

For instance, in the section of the strata of lower series, taken on the east crop at Pontypool (Monmouth) there are only 23 veins, amounting in the aggregate to 42 ft. of coal; whilst at the Plymouth Ironworks, which are situated on the north crop, and about 15 miles north-west of Pontypool, there are 33 veins, containing 50 ft. of coal; and at Cefn Crebwr, which is on the south crop, and about 28 miles south-west of Pontypool, there are only 23 veins, of an aggregate thickness of 80 ft. These discrepancies occur in the lower series, in such situations as have exposed the veins to the effects of denudation, the results of which are by no means uniform. In the upper series there is a still greater difference in the quantity of coal shown in the several sections, taken at different but not very distant places, and the area of these veins is so much cut and divided by valleys as to leave the coal only in strips and patches. That portion, therefore, of this coal field in which all the veins are to be found is of a very limited extent, and in estimating its quantity very liberal deductions must be made from the areas of the original deposit. It would require great labour, as well as an intimate and exact knowledge of the coal field, to estimate its contents truly and correctly; and in the absence of more satisfactory information, a statement of the number and thickness of the veins of coal in the upper and lower series, extracted from the "Memoirs of the Geological Survey of Great Britain," by Henry de la Beche, shows that there are 64 veins or seams of coal, the aggregate thickness of which is 190 ft., and the area of this coal field, as previously shown, is 1055 square miles.*

The authority generally referred to and most relied on as to the extent of the South Wales coal field is a paper by Mr. Martin, in which the area is estimated at 1000 square miles, and the thickness of the workable coal, extending over the whole of this area, is said to be equal to 98 feet. Mr. Martin takes only half of the aggregate thickness shown in the foregoing extracts from the Ordnance sections, yet, for reasons before stated, it may be fairly doubted whether his estimate does not exceed the probable average thickness of the coal throughout its whole area. In the absence of exact measurement of the existing extent of the several veins and their varied thickness, any precise estimate of this description must be viewed only as conjectural; there can, however, be no doubt, from the facts already stated, that the quantity of this valuable mineral in South Wales is immense, and that in area and thickness it far exceeds any other coal field in Europe.

In connexion with this subject the present consumption ought to be considered, so as to show the rate at which the process of exhaustion is proceeding, and what relation it bears to the whole quantity, and to the consumption of other districts. A brief notice of the several sources of demand may be interesting, and serve to prove the great national importance of this coal field in sustaining the vast manufactures of metals which are dependent upon it.

The rapid and increasing growth of these establishments affords presumptive evidence of the value of this coal, and its fitness to be more extensively introduced into general

* The Newcastle coal field has been estimated by the author at 840 square miles, and it is said to contain 12 ft. of workable coal, 105 square miles of which were exhausted in the year 1826. The areas of the following coal mining districts are as follows:—Great Britain and Ireland, 7995 square miles; France, 914 square miles; and Belgium, 486 square miles.

consumption. Large quantities are used in the smelting and manufacture of iron, which were first introduced into this district about a century ago. There are now 191 blast-furnaces, and 125 are in blast. The quantity of pig-iron made in South Wales in 1863 was 847,753 tons.*

Copper smelting was first introduced into this district about the year 1690, in the neighbourhoods of Swansea and Neath, where it is still pursued on an increasing scale, and has been extended to Port Talbot on the east, and Llanelly and Pembrey on the west. The ores are principally imported from Devon, Cornwall, Chili, Cuba, and Australia, and the value of the copper annually produced is estimated at 2,690,000*l.*

A considerable quantity of coal is annually consumed in the manufacture of tin-plates, spelter, chemicals, patent fuel, and other manufacturing works of the district; also in the burning of lime, domestic, and other purposes.

From the statistics given below it will be seen what relation the South Wales coal field bears in comparison to the others of Great Britain in exports to foreign countries:—

	Tons.
The Northern comprises the coal shipped at Newcastle, Shields, Blyth, Amble, Sunderland, Seaham, Hartlepool, Stockton, Middlesbro', Whitehaven, and Maryport	3,799,542
The Yorkshire comprises the coal shipped at Hull, Grimsby, and Goole	384,727
The Lancashire, coal shipped at Liverpool, &c.	586,733
The Western comprises the coal shipped at Bristol, Cardiff, Swansea, Newport, Llanelly, Port Talbot, Neath, and St. David's	2,297,234
The Scotch comprises the coal shipped at Glasgow, Port Glasgow, Greenock, Grangemouth, Alloa, Borrowstoness, Troon, Ardrossan, and Inverkeithing.	541,105
Total exports from Great Britain	7,529,341

Presuming that this coal field extends over 1000 square miles, and that it is of an average thickness of 95 ft. of workable coal, Mr. Martin calculates there are 64,000,000 tons in each square mile; taking, therefore, the consumption at the present amount, 6,917,000 tons per annum, it will require upwards of 10,000 years to exhaust the coal in South Wales. As has already been stated, reasonable doubts may fairly be entertained of the correctness of Mr. Martin's estimates; but supposing there to be only two-thirds or even one-half of this quantity, there is still ample supply for ages to come.

The coal of South Wales may be classed under five distinct heads—bituminous, semi-bituminous, partially bituminous, anthracitous, and anthracite. The Bituminous Coal closely resembles that of Newcastle. Although it has not quite so much bitumen, yet it has more carbon. It is not, therefore, quite so good for the manufacture of gas, but for most purposes it is quite equal to it. The Semi-Bituminous Coal is very valuable, and, with the exception of making gas, it is fit for almost every purpose as a good and economical fuel. It is sufficiently bituminous to be easily inflamed, and makes a bright and cheerful fire—giving out little smoke, and imparting great and lasting heat. The Partially Bituminous Coal partakes of the nature of anthracite, yet still retains some bituminous properties. In this district it is generally known as "free-burning" coal, from its not "binding" or caking in the fire. In many respects it resembles the semi-bituminous coal, and in others it is like anthracite. For general purposes it is not equal to either of the foregoing kinds, but some of it makes good iron, and it is a good steam coal. It also answers well for lime burning. The Anthracitous Coal is the least valuable kind in the district. It has few of the peculiar properties of the bituminous coal, but more nearly resembles anthracite. It is known as "culm," or bastard anthracite, and is used principally for lime-burning, for which purpose it is exported to Ireland and other places, but some of the best is used in making iron. The Anthracite Coal of South Wales is of an excellent quality, and possesses all the peculiar properties of that mineral. It burns without emitting flame or smoke, does not "bind" or cake, nor soil the fingers on being handled, and it has a metallic lustre. It is found in great abundance in Pembrokeshire, Carmarthenshire, and in some parts of the county of Glamorgan.

Reviewing the premises, and taking into consideration the extraordinarily large quantity of coal in this deposit, the variety of its kinds and qualities, as well as the cheapness with which it can be procured, it must be admitted that when all other sources of supply have become diminished, or are altogether exhausted, the continued maintenance and the increased prosperity of British manufactures and commerce may be sustained for ages by the coal of South Wales.

STRIKES AND ARBITRATIONS.—A pamphlet, bearing this title, has just been issued by Mr. RUPERT KETTLE, the judge of the Worcester District of County Courts, to whom, it will be remembered, trade disputes have upon several occasions been submitted for arbitration. The treatise has been "written at the request of the Working Men's Club" of Wolverhampton, of which, it appears, Mr. Kettle is President, and the style is well calculated to meet the views of the class to which it is addressed. He considers masters and workmen to stand to each other in the position of the two sexes, and maintains that inasmuch as reproduction ceases when they separate, their relative position is different from that subsisting between the farmer and the miller in their dealings with each other—the latter dealing in the article produced, whilst the former has only to do with the means of production. The term "labour market," he says, is now an abstract idea in the science of political economy—practically existing only in that vestige of a barbarous age—the Statute Fair; and he observes that what is wanted in the absence of a regular mart is some mode by which masters and workmen can be brought together upon common ground, where they can fully and freely express themselves each on his own behalf, as parties negociate any other contract. He very truly observes that the rules which govern market value are not disturbed in their operation, whether attempts are made to alter the relation of supply to demand by one means or another. If a hundred men are withdrawn by emigration the capital for employing those hundred men will soon be withdrawn also. It is only a question of transition disturbance, whilst the market is righting itself. Practically, it does not matter whether by restrictions upon apprenticeship, stent of days' work, or other means, you prevent something coming into the commodity side of the scale, or whether you take something out of it by emigration, the effect in either case is the same, for it is in either case equally easy to take a corresponding portion of the weight out of the other side, and balance the scales. An arbitration would certainly check the operations of your strike-hunting emigration agents. Mr. Kettle's book is written throughout with evident care and consideration, and from the long experience which the author has had in the district he is specially desirous of benefiting, his opinions should receive the utmost attention. The interests of the workmen are admirably contended for, and the book cannot fail to command that large amount of patronage to which its merit especially entitles it.

SUPPOSED DELAY IN WINDING-UP SUITS.—At the Stannaries Court sitting, last week, Mr. MARRACK said he wished to take that opportunity of explaining through the press, to the public, why it happened in many cases delay in winding-up mines had been unavoidable. This was in great part owing to the difficulty experienced in disposing of the machinery at anything like fair prices. He was now concerned professionally in two or three mining companies that were being wound-up; and they had duly advertised the machinery for sale, but the Registrar had been unable to sell it at anything like the prices which he would have been justified in accepting. Then, again, many of the contributories had been unable to pay the calls due from them when they were made, although in respectable positions, and they had applied to that Court for time, as if this was not granted, they should be driven into the Bankruptcy Court. To prevent such a result, time had been allowed them in which to pay the calls due from them, and this, of course, had occasioned delay. He thought it was only fair that the public should be informed of the causes of the delay, in order that creditors might see that it was not the fault of the Court, or the solicitors engaged in the suits, that payments of claims due was not made sooner.—The VICE-WARDEN said where there was a fair chance of obtaining the payment of calls from a contributory, time must be given him, rather than drive him into the Bankruptcy Court; and then time must be allowed for the sale of the machinery. He had had occasion recently to examine into some of the complaints as to the delay in satisfying the claims of creditors, and they appeared to him to arise from ignorance. For instance, one creditor complained that another creditor had been paid while he had not, and, on examining into the matter, he found that the party complaining was a contributory, while the person who had been paid was not, but only a creditor. The former could not be paid until the claims of all the simple creditors had been discharged. No doubt if they possessed such a staff as the superior Court, they might be able to get through the work in a shorter time; but as it was, reasonable time must be allowed for winding-up a suit. The only thing that they must take care of was that there should be no unnecessary loss of time or money in winding-up.—Mr. MARRACK said he knew one case in which the Registrar of the Court had an offer of 250*l.* for the engine of a mine, but as this was far below its value, he declined to accept it. A few weeks after the Registrar obtained 500*l.* for the engine. Had the sale been under the direction of the Bankruptcy Court, the engine would have been peremptorily sold for the former sum.

THE LATE FURZE HILL WOOD MINE CATASTROPHE.—The mine has been in work by the present company about six years. Machinery has been erected for pumping, winding, stamping, and dressing the ores, &c.; and the engine-shaft sunk 54 fathoms below surface perpendicular, having several lodes north and south of the shaft, which can be reached from or by cross-cuts. The principal lode of value at present seems to be No. 1 north lode, on which nearly all the operations of the mine have been conducted for some time past. Within the last two months an additional piece of ground, or a new sett to the east, and adjoining the old Furze Hill Wood Mine, has been obtained. It consists of extensive surface operations, which appear to have been carried on by means of an adit some few fathoms below surface. Those workings are of very ancient date, and it appears no one at the present time can give any reliable account as to the time of its being wrought below adit. The 20 fathom level, in Furze Hill Wood, has been driven up to the boundary of the old sett, and a few fathoms driven into the new ground, all secure and dry. A rise of some fathoms having been put up in the back of the said level, near the boundary of the two setts, in firm and secure ground, and giving no signs or indications whatever of workings ahead. It was generally considered and believed, from those trials, that the old mine had not been carried on to any great extent or depth below the said adit, on this lode. The 40 is reached by a cross-cut from the engine-shaft to the lode. Rises and winzes, from the 20 to the 40, have been communicated on the course of the lode, and proper ladder-ways constructed for the men to ascend and descend to their respective places of work, independent of the footway through the engine-shaft. It was at and below this, the 40 fathom level, where ten men and boys were at work in the mine, while Henry Fox and Son were engaged in driving the 40 east, a few fathoms only in advance of the 20, both of these points being in secure ground up to the 12th inst., but on that day it seems Henry Fox and Son accomplished an unusual amount of drivage, which certainly goes to show old workings or attle had been cut into. The men, Henry Fox and partners, having a month's contract, seems to have encouraged them to extra exertion, regardless of danger, until their attention was called thereto by one of the other miners, Michael Yeo, who, by chance, went into the 40 end, and saw water oozing, and the forcing of attle from the pressure ahead. Yeo at once saw danger, and raised an alarm, ordering two boys, who were near the end, to make their escape to surface, while he would call the men from below; and while raising this alarm the water broke in in full force. This poor man thus sacrificed his own life in endeavouring to rescue the others, leaving the two boys to make known the fatal result. The 54 or bottom levels are reached from the engine-shaft, and also by ladder winzes from the 40. Near this winze, and in the 54 end east, six men were employed, whom, it would appear, had not sufficient notice of the danger to make their escape. The rush of water from the 40 east, pouring down the winze and shaft, quickly filled the workings 5 fms. above the 40, and thus all chance of escape was cut off. Captain Doidge, the superintending agent of the mine, had already put on his mining dress, and would have been in the mine some time before, but was detained on business with the purser of the mine for some short time. The captain at once made for the bottom of the shaft, but was prevented from reaching the 40 from the influx of water, which was rising towards the 30. From such a great influx of water it was found necessary to increase the pump-work of the shaft, which, on being set to work, began to fork the mine; and it is hoped, as the water is now 7 fathoms below the 40, that the mine will be drained to the 54 early on Friday morning. Five of the bodies of the poor unfortunate miners have been recovered, and great hopes are entertained that the remaining three will be brought to surface in the course of a few hours.

* The quantity of pig-iron made in Great Britain in 1863 was 4,510,040 tons, of which 738,589 tons of pig and malleable iron were exported; of the above quantity 847,753 tons were made in South Wales, and 254,529 tons of pig and malleable iron were exported from Newport and Cardiff, of the following descriptions:—Pig-iron, 1856 tons; bundle and bar iron, 42,878 tons; and rails, 210,795 tons. Four-fifths of the total quantity of rails exported from Great Britian are manufactured in South Wales and shipped at Newport and Cardiff. The quantity of iron ore obtained in the county of Glamorgan, in 1863, was 420,017 tons, of the value of 167,493*l.* 6s.

FOREIGN MINING AND METALLURGY.

The present financial crisis is causing increasing uneasiness among the Belgian forgemasters, as on whatever side they turn the future appears threatening. The long period of political uncertainty through which Europe has had to pass has had the effect of almost entirely paralysing commerce; no transactions have been concluded except such as had become imperiously necessary, and works which are at the commencement of important orders are scarcely more assured than others, as every post may bring them a revocation of those orders. The financial crisis will also involve heavy financial losses; grave difficulties of this kind have already been noted in connection with contracts concluded on Italian account. If the situation does not soon experience a modification, Belgian forgemasters will find themselves reduced to the hard alternative either of suspending the operation of their works or of working at a loss and accumulating stocks. A Liége letter says:—"On the one hand the prospect of a general war, with its disastrous consequences, and on the other hand the considerable fall of pig in Scotland and England have completely modified the state of our markets during the past fortnight. We communicate, then, nothing astonishing to our readers in telling them that negociations of important affairs are adjourned, and that orders are almost *nil*. Happily our ironworks and workshops of construction are at present provided with important orders, the execution of which will still last from three to six months. At present the course of events has not influenced prices, and iron remains quoted at 7*l.* 4s., 7*l.* 16s., and 8*l.* 8s. per ton, with a reduction according to the importance of contracts. Refining pig remains also very firm." Having regard to the general situation, the aspect of the Belgian coal trade is very satisfactory. Coal mining in Belgium may be said, indeed, to be infinitely better off than metallurgy or manufactures. There is reason, nevertheless, to fear that the influences of the moment will affect this branch of industry, and that commercial stagnation, if it continues, will not spare the Belgian collieries. At Liége and Charleroi the state of affairs remains identical with that noted in former reports. In the Centre prices are maintained; the fabrication of coke is acquiring a great extension in this group. The stock of coal at Mons on the Canal de Condé was estimated at the commencement of this month at 771,210 hectolitres, as compared with 1,589,800 at the corresponding date of 1865. This fact tells, of course, in favour of a maintenance of present quotations.

Advices as to the French iron market present little interest. There was an error last week as to the terms upon which the Charentes Railway Company had contracted for 3000 tons of rails with the Fourchambault Forges and Foundries Company. The price was given at 8*l.* 7s. 10d. per ton; it should have been 8*l.* 15s. 10d. per ton. A Lyons circular announces that M. César Dufournel, in retiring from business, transfers his house to MM. Descours, Cabaud, and Bolot. The company working the collieries of Bonne Espérance at Lambusart has announced a dividend for 1865 at the rate of 6 per cent. per annum; this dividend is now in course of payment. The Maubeuge Blast Furnaces Company has declared a dividend for 1865 at the rate of 1*l.* 8s. per share; the distribution of this dividend has been commenced this week. The Vagnas Mines and Ironworks Company, in the Ardèche, has announced its meeting for June 20, at Vagnas. The meeting of the Denain and Anzin Blast Furnaces Company will be held at Paris on July 10.

A Havre letter states that the business done in copper early in the month possessed little importance, although for delivery, May 15 and for the end of June, some small sales were noted respectively at 80*l.* and 82*l.* per ton; but the reception of intelligence announcing the bombardment of Valparaiso, and the hostile intentions of the Spaniards against the other Chilian ports, exerted an immediate influence on copper from that direction, and some quantities of disposable and to be delivered have since been dealt in at 82*l.* 10s., while lots are now held at 83*l.* per ton. The Paris market continues quiet; affairs are moderate, and prices without sensible variation. The advices received from Germany are not favourable; for the most part the business done is limited to the requirements of consumption, and prices are nearly nominal. In consequence of the fall in prices on the English market, and the continuation of unfavourable political and financial circumstances, the price of Banca has again retrograded in the Amsterdam market; 805 blocks have been sold at 46½ fls., 1000 blocks at 46 fls., and 1200 blocks at 45 fls. At Rotterdam the transactions concluded have been rather important, but prices have not been very remunerative; 200 ingots of Banca have been dealt in at 47 fls., 600 at 46¾ fls., 900 at 46½ fls., 1700 at 46 fls., 1500 at 45½ fls., 2100 at 45 fls., 400 at 45½ fls., and 300 ingots at 45¼ fls. Transactions have been almost completely wanting on the Hamburg market; prices remain nominal. The Berlin market has been heavy; the Cologne market has also been very feeble. The Paris market has fallen in consequence of an announcement of a reduction of 6*l.* per ton having been decided on by English founders. The demand for lead has continued very active on the Berlin market, and prices have been very firmly maintained. The Hamburg market has remained without transactions, in consequence of the want of stock; prices have been firm. At Paris lead also maintains very firm quotations. The Berlin zinc market has remained quiet, and without business. Breslau has also reflected the feebleness of the foreign markets, and the influence of the political situation in Germany; there are, consequently, only nominal quotations to indicate. The deliveries to Hamburg and Stettin have almost ceased; under the apprehension of a fatal issue to the war, for which preparations have been made in Germany, several manufacturers have reduced their production, and if this sad state of affairs should be much further prolonged it is certain that other producers will follow the example. At Paris the article has been but feebly supported.

We can now enter into details of the operations of the Vieille Montagne Zinc Mines and Foundries Company during 1865. The dividend for last year has been fixed at 14s. 6d. per share instead of 16s. per share distributed for 1864, and previous years. This small reduction in the dividend corresponds to a diminution in the rough profits realised, which amounted in 1865 to 129,252*l.*, against 136,941*l.* for 1864, showing a difference of 7689*l.* But the decision of the Council of Administration has been more especially dictated by the political circumstances through which Europe is at present passing, and by the necessity of protecting in principle and in fact the company's *fonds de roulement* against the commercial and financial eventualities which may arise. Neither the completion of the company's establishments in Sweden, which have at last entered on an era of production, nor the mining works on hand, could be interrupted without grave inconvenience, and must accordingly be provided for. The course of the company's affairs during the past exercise was regular. The rise in the value of its products during the second half of the year redeemed in part the low prices of the first six months, and the pacification of the United States tended to enlarge an outlet, which had remained restricted during the period of the war. The general production of the company's metallic mines amounted in minerals of every kind adapted for sale or treatment to 57,822 tons, while the production of the collieries amounted to 97,292 tons, making a total of 155,114 tons. This total was far from corresponding to the requirements of the company, but the directors provided for the insufficiency in the production by purchases of minerals or coals. The purchases of minerals were made at remunerative rates. The purchases of coal experienced, on the contrary, the influence of the general rise which has occurred in the coal basins of the Meuse and the Ruhr, and burdened the return price of the company's zinc with a slight augmentation of cost. As regards the company's mining operations, works of reconnaissance have been successfully pursued at the Moresnet Mine at the level of 300 ft.; the result has been the discovery of calamines in abundance, compact, and of excellent quality. The limits of the company's calamines basin are still unknown, but at the point at which the works at the present level have now arrived it is thought that the development of the bearing at a greater depth will soon be reached. Mining operations in the Belgian part of the company's concessions have been impeded by a dispute raised between the company and a great neighbouring proprietor. The St. Paul Mine, at Welkenraedt, will shortly receive a certain development by the works undertaken in it, and the Council of Administration hopes to be in a position to commence this year the breaking up of the bearing of carbonate of plomb. As regards the company's Prussian mines, they have pursued their regular course of production; and thanks to some improvements of detail introduced into the mechanical arrangements in force, the company has obtained an improvement in the wealth of the products made available. With respect to the Swedish works, the directors have, to a certain extent, limited their production, preferring to enrich the blendes rather than to increase their quantity to the detriment of their intrinsic strength in zinc. This circumstance explains the fact that the production of the exercise 1865 only amounted to 25,437 tons of rough rock, which, on being prepared, furnished 10,136 tons of blende, suitable for treatment in the furnaces. The roasting works constructed at Ammeberg, the head quarters of the company's Swedish administration, were brought into operation in 1865; and although only half the furnaces were constructed, and the majority were only lighted in the second half of the exercise, the production amounted to 7088 tons of roasted blendes. The quantity of blendes thus obtained was forwarded to the company's Belgian and German works concurrently with the rough blendes. A steamboat, which the company has had built for its transport service in the interior of Sweden, commenced working in July, 1865; although this steamer was only able to run during three and a half months last year, it, nevertheless, secured a notable economy in the transport of minerals, and contributed to lower the pretensions of the Swedish boatowners. In fact, the whole transport service from the Ammeberg establishment to the Belgian or German works is well organised, and assures the removal in six months of a whole year's production. The Swedish agency may thus be considered to have entered upon a regular course of production, which will increase every year. Without creating new furnaces, but with the aid of real improvements introduced into the daily work of its foundries, the company attained last year a production of 30,592 tons of rough zinc, 21,857 tons of rolled zinc, and 4859 tons of *blanc de zinc*. The general sales effected having, on the other hand, attained a total of 37,217 tons, the directors have had to provide for their excess over the production partly by a deduction from stocks and partly by supplementary purchases. By this increase in the production the company was enabled to obtain last year better results than were at one time hoped for, notwithstanding a slight augmentation in the return price, and a rather notable diminution in the nett profits derived from sales. The profit realised last year by the Silesian Zinc Mines and Foundries Company is returned at 240,760 thalers; and the council of administration has fixed the dividend for 1865 at 4⅓ per cent. per annum as regards the preference shares, and at 2⅔ per cent. per annum as regards the old shares. These dividends are payable at the office of the company at Breslau, or by the Credit Mobilier at Paris. The result of the past year's operations does not seem to be very brilliant.

IMPORTS OF COPPER.—The quantity of copper ore imported into the United Kingdom in 1865 was 82,562 tons, as compared with 67,286 tons in 1864, and 80,693 tons in 1863. The imports of copper regulus in 1865 were 39,686 tons, against 26,018 tons in 1864, and 21,406 tons in 1863. These imports, when combined together, foot up to 122,248 tons in 1865, as compared with 93,304 tons in 1864, 102,099 tons in 1863, 117,439 tons in 1862, 94,480 tons in 1861, 97,317 tons in 1860, 84,455 tons in 1859, 97,099 tons in 1858, 95,094 tons in 1857, 82,803 tons in 1856, 66,600 tons in 1855, 57,292 tons in 1854, 50,393 tons in 1853, 43,044 tons in 1852, 42,126 tons in 1851, and 45,862 tons in 1850. The imports of unwrought and partly wrought copper last year amounted to 434,340 cwts., as compared with 498,780 cwts. in 1864, 243,240 cwts. in 1863, 268,020 cwts. in 1862, 315,760 cwts. in 1861, 235,060 cwts. in 1860, 218,060 cwts. in 1859, 128,280 cwts. in 1858, 128,700 cwts. in 1857, 76,257 cwts. in 1856, 160,880 cwts. in 1855, 64,365 cwts. in 1854, 104,007 cwts. in 1853, 103,636 cwts. in 1852, 100,874 cwts. in 1851, and 97,621 cwts. in 1850.

REPORT FROM SCOTLAND.

GLASGOW, MAY 23.—The "rig" in the Pig-Iron market is at an end, but the consequences are only beginning to be felt. The concomitants of gambling in merchandise, such as forged bills of exchange, &c., are beginning to discover themselves; and, although it was pretty well known what the upshot would be, we were necessitated to hint at the results as delicately as possible, as we had the terrors of the law of libel admonishing us to caution, and preventing us from revealing before the time. Speculation is now at an end, and who have been the gainers? Not the speculators—the leaders are already in the *Gazette*. Not the "bears," they have got their paws dreadfully burnt, poor fellows. The ironmasters are the only profiters; and now, when iron is selling at a discount, they can afford to purchase or go into stock. How matters really stand, old brokers on 'Change have to draw their breath and think; the disorganisation is so great that they really seem at a loss to know how matters are, and look, on their 'Change, more bewildered than strangers. During the past week there has been a good—not a large—but a good demand for Pig-Iron, and the market being affected by needy sellers, prices receded to 51s. prompt cash; and if 50s. is reached there is little chance of prices going lower. Monied men who could hold for the fall going in just now could easily gain a few thousand pounds on "pigs." The shipments are now attaining their wonted position, and home consumption has increased with the decline. During the week 6185 tons were shipped to foreign ports, and 5025 tons were sent coastwise, which make a total of 11,210 tons, as contrasted with 13,700 tons in the same week of last year. The shipments of the year to date are 197,964 tons, against 252,954 tons last year, which makes a total decrease of 54,965 tons for the year. We had a quiet market to-day, and business was done at 51s. cash, at which we close. No market to-morrow, owing to the Queen's birthday.

Malleable Iron is little enquired for, and makers are slowly getting through with old contracts. Prices are likely to be lower before long. The founders are getting fuller in their orders, and are pleased with the margin left them by the reduction in pigs. Coals are in more limited demand, especially for home use, and are declining in price. Shipping qualities of steam coal are still enquired for, and are finding a ready market. The tendency of prices is to a decline, but the miners are keeping them up by their clamorous demands for an advance in wages. In Ayrshire, after a short lock-out, the masters have conceded 6d. advance on the restricted hours, and the Portland Iron Company have been enabled again to light their six furnaces at Hurlford. On the other hand, the Rosehall colliers (700) are out on strike this week for an advance of 6d. per day on the eight-hours day. The exports of coal are, for the week, under those of last year nearly 5000 tons, the proportion being this year 18,645 tons, against 23,550 tons same week last year.

The heiress of entail of the Torbanehill mineral having sued the lessee, Mr. Young, for 23,900*l.* of damages, for having claimed the exclusive right to manufacture paraffin oil from the pursuer's mineral, which diminished the marketable value of the mineral which came into her own lands as lordship from her tenants, the Court of Session decided that "the averment as to the defenders' representations that their patent give them the exclusive right to manufacture paraffin oil from the Torbanehill mineral did not amount to a legal wrong, entitling the pursuer to reparation.

The Clyde shipbuilders and engineers having conceded their workmen the 57 hours for 57 hours' pay have been retaliated upon; the men in two of the yards going on strike on Monday. The masters having formed themselves into an association, with a capital of 150,000*l.*, have resolved to lock-out their refractory hands from the 28th inst., a step which will very seriously affect the trade of the West of Scotland, and set 25,000 to 26,000 well-paid workmen idle; and what is worse, one or two of the largest shipbuilders are seriously meditating removing to the South of France, and thus the industries of the Clyde will be carried to other countries. The labour question is assuming proportions, and threatening injury so serious and calamitors, that if carried much further may permanently affect the commerce of the country. It will, indeed, be a pity if the uneducated masses should, in their wilful and perverse ignorance, be instrumental in removing the trade of the country to other lands, where more of contentment, and less of that clamorous discontent against employers, are experienced.

REPORT FROM MONMOUTH AND SOUTH WALES.

MAY 24.—The Iron Trade of the district remains in about the same state as last reported. Fortunately up to the present time the only works that has had to succumb to the panic has been the Briton Ferry Works, referred to in previous reports, the creditors of which have agreed to accept a composition of 4s. in 1*l.*, and it has been arranged for the works to be carried on in future by Messrs. Townsend, Wood, and Co. The suspension of the Old Ebbw Vale Company will not affect the credit in any way of the present limited liability company. The effect of the panic has not been felt in this district to the extent it has in other districts; and there is some confidence entertained that should the foreign trade keep anything like active, makers will be able to keep their works fairly going till home affairs assume something like steadiness, and until that time arrives it cannot be expected that either buyers or makers will enter into any heavy new transactions. The enquiry from America is of an improved character, and business with British North America is steady; but it is announced that within the last few days several Liverpool houses, doing business with New York, have decided to close their books for the present. Welsh iron is in more request for Holland and Sweden, and the advices from Russia are favourable. The Eastern trade continues in a quiet state, and scarcely any business is transacted with most of the markets of Southern Europe. The demand for pig-iron is less, except for certain special qualities, and there is no change to record in prices. The enquiry for tin-plates is inactive; in fact, scarcely any business is being done. Makers, however, are in a position to keep their works fairly going with the old orders they have in hand, but, unless some revival takes place before long, the men will have to go on short time. Activity characterises the Steam Coal Trade, and all the collieries are fairly employed. The local demand for house coal is about an average, and in the coasting trade there is no change to report.

The miners employed in the Aberdare and Rhondda Valleys and the surrounding districts are agitating for a higher rate of remuneration, and they have held two or three meetings on the subject. On Monday a deputation assembled at the Hastings Hotel, Cardiff, with the object of having a consultation with the colliery proprietors, who had been informed of the proposed meeting. However, only a few of the Rhondda masters were present, and nothing definite was determined upon; in fact, the reason of the masters not attending was stated to be the impossibility of their complying with the demands of the men, which are said to be most unreasonable. A more inopportune time could not have been selected by the men, as notwithstanding the briskness of the coal trade, which, by-the-bye, has benefited the men by affording them regular work, the colliery proprietors have for some time suffered from the general depression of the money market, and are now carrying on trade amid the most severe financial troubles which ever befel the commerce of the country.

Great efforts are being made to complete the Cyfarthfa branch of the Brecon and Merthyr Railway, and it is expected that the line will be ready to be opened for goods and mineral traffic by the 1st of June. When the branch is completed there will be a large increase in the traffic.

It is with deep regret we have to record the somewhat sudden death of Mr. G. E. Bevan, of Cheltenham. The deceased was principal partner in the firm of Bevan and Co., whose extensive connection with the Northamptonshire iron ore mines is so well known. He was, also, the principal of the Abertillery Colliery Company, and was otherwise most intimately associated with the iron and coal trades of South Wales. His loss will be much felt throughout this district. The cause of death was congestion of the lungs.

On Saturday, one of the oldest of the Aberdare Colliery proprietors—Mr. D. Davies, of Blaengwawr—departed this life, full of years and universally respected. The deceased had risen from the ranks, and won his way to wealth and position by persevering industry and shrewdness of judgment. For many years past the name of Mr. David Davies was closely associated with the coal trade of South Wales, and, with the exception of one or two firms, he was the largest exporter of coal in this district. He was a most liberal supporter of the educational cause in the Principality, and by his death a large number will lose a kind and unostentatious friend. The extensive business of which the deceased was the head will, it is understood, be in future carried on by his sons.

The arrivals at Swansea include—The Hannah, from Santander, with 276 tons of zinc ore, for Shackelford and Ford; the Hermenio, from Aveiro, with 144 tons of copper ore, for Richardson and Co.; the Minerve, from St. Malo, with 140 tons of zinc ore, for Dillwyn and Co.; the Rose, from Requejeda, with 140 tons of zinc ore, for Shackelford and Ford.

THE SUSPENSION OF THE OLD EBBW VALE COMPANY.—The intelligence of the suspension of this company created quite a sensation throughout the district, where the parties are so well known and esteemed; in fact, many at first would not believe it, as two or three of the partners were looked upon as men of extensive wealth. The partnership consists of Mr. Abraham Darby, Chairman and managing director of the Ebbw Vale Company (Limited); his brother-in-law, Mr. W. Tothill, of Bristol; Mr. Joseph Robinson, London, deputy-chairman of the Ebbw Vale Company (Limited); Mr. Thos. Brown, of Shepstow, and Mr. Henry Dickenson, of Shropshire. With regard to Mr. T. Brown, it may be stated that his connection with the firm ceased some four years since,

when he made arrangements with his partners, by which he is indemnified; still there is no doubt he is liable to the public for any engagements entered into by the old company. It is stated that the difficulties arose in consequence of the firm not being able to meet some large liabilities which they retained when they disposed of the works to the Ebbw Vale Company (Limited). There is no doubt they would have been able to have met them but for the panic, as they had ample securities with Overend, Gurney, and Co., but through whose collapse Mr. Darby and his partners were unable to carry out the arrangements they had made to provide for the liquidation of their outstanding engagements. It is said that during the war they shipped largely to the United States, and that their difficulties have chiefly arisen out of the American trade. The liabilities of the old company in this district are very small, and the suspension will not in any way affect the credit of the Ebbw Vale Company (Limited). We have been requested to insert the following communication:—

"EBBW VALE COMPANY.—It is satisfactory to know that the temporary suspension of the *old* Ebbw Vale Company, announced in the *Times* of Monday, does not in any way affect the credit of the new Ebbw Vale Company (Limited), and that the works will be carried on in every respect as heretofore. The liabilities of the old company in the district are very insignificant. A circular, of which the following is a copy, has been issued to the shareholders in the Ebbw Vale Company (Limited):—

May 19.—You will perceive in the morning papers of the day on which you receive this letter the announcement of the suspension of Mr. Abraham Darby and others, the former proprietors of the estates purchased of them by the Ebbw Vale Company (Limited). This event has been occasioned by the stoppage of the ordinary sources of credit on which the partners in that firm had relied for their arrangements; but it is understood it will only be temporary, and that the assets of the partners (in which are included very large landed estates) will far exceed all their liabilities. In the meantime, Mr. Darby being the Chairman, and Mr. Robinson the deputy-chairman, of this company, the board has thought it right to direct this communication to be made to the shareholders, in order to remove any apprehension on their part of injury to the interests of the Ebbw Vale Company (Limited). Both Mr. Darby and Mr. Robinson have placed themselves entirely at the disposal of the company, and there is no reason to fear that their services will be interfered with in a manner to be injurious to the interests of this company. The board are about to issue a report to the shareholders of the working of the new company for the last 12 months, which report only awaits the signatures of the auditors, and the board believes that it will be considered by the shareholders to be satisfactory.—EDWIN GROVE, Secretary."

SUSPENSION OF THE OLD EBBW VALE IRON COMPANY.—The announcement affecting this company, made in the *Times* of Monday last, created a sensation of no ordinary character in Newport, as well as in the Principality generally. We have taken some pains to arrive at correct information in reference thereto, and are enabled to give the following particulars from most authentic sources:—About 25 years since, on the failure of Messrs. Harfords, the Ebbw Vale and Sirhowy Works, freeholds of some 2000 acres, were bought by Messrs. Abraham Darby, Alfred Darby, William Tothill (Bristol), Henry Dickenson (Coalbrookdale), Joseph Robinson, and Thos. Brown. Mr. Alfred Darby died some nine years since, and his share was purchased by the surviving partners. About four years ago Mr. Thomas Brown ceased all connection with the firm, from which period it has up to the present time consisted of Mr. Abraham Darby, Mr. Dickenson, Mr. Wm. Tothill, and Mr. Joseph Robinson. On June 6, 1864, these gentlemen sold their entire interest to the Ebbw Vale Iron Company (Limited), for a sum, including stocks taken at a valuation, &c., in round numbers, of some two millions of money, payable over a period of three years, in six equal instalments, at intervals of six months. It will thus be seen that there is yet due to the old firm one-half of the purchase money—or, as near as may be, one million—less, of course, the amount of shares held by Mr. Abraham Darby and Mr. Robinson in the Ebbw Vale Company (Limited), it being well known that Mr. Tothill and Mr. Dickenson ceased all connection with the property, the whole of which was transferred to the new proprietary, represented by Messrs. J. Platt (Oldham), G. B. Beecroft (Leeds), J. A. Turner, H. D. Goodson (Hyde Park), and C. K. Anderson, 65, Old Broad-street, on June 25, 1864. The deposit money, or rather first payment, was 300,000*l.* cash. Mr. Dickenson, however, holds a security to the extent of 630*l.* per annum during the lease of the Abercarne Collieries.

When the works were transferred on June 25, 1864, there were, as may well be supposed, heavy liabilities attached to so large a concern, inasmuch as iron ore is usually paid for by six months' acceptances, and the general requirements of the various establishments by acceptances at three months. All these have of course been duly paid off, leaving but little, comparatively speaking, to be provided for.

It is well known that the old Ebbw Vale Company are creditors of Messrs. Levick and Simpson to the extent of some 80,000*l.* It is also well known that the company holds American securities to a large amount, a property dimly improving in value, besides other large securities, and a very considerable interest in the railways connected with this district. Besides this, we learn that Messrs. Darby, Dickenson, and Tothill were possessors of several large and valuable landed estates, altogether unencumbered, and we can state, with the fullest confidence, the suspension will be but for a brief period—that there will be ample funds forthcoming to discharge all liabilities in full leaving each of those gentlemen a very handsome independence. We are glad to find so general a sympathy expressed for Mr. Abraham Darby under these trying circumstances, and all will rejoice heartily to see him well through the business.—*Star of Gwent.*

TO THE EDITOR OF THE "MINING JOURNAL."

SIR,—Our attention has been drawn to a paragraph in the *Mining Journal* of May 12 stating that "the Aberdare Valley and Caerphilly Junction Railway Bill is promoted by the trustees to the Marquis of Bute, in conjunction with the Rhymney Railway Company." This is altogether a mistake: neither the trustees of Lord Bute nor the Rhymney Railway Company are in any sense promoters of the Bill, nor are they connected with it either directly or indirectly. The promoters are gentlemen wholly unconnected with the trustees, as well as the Rhymney Railway Company. As the statement made in the Journal is calculated to produce inconvenience, and may possibly embarrass us in the progress of the Bill through Parliament, we shall esteem it a favour if you will kindly take the earliest opportunity of correcting the error into which you have been led.—*Cardiff, May* 21. LUARD AND SHERLEY, Solicitors for the Bill.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

MAY 24.—The Iron Trade of both the great districts of this county is undoubtedly—as was inevitable from the commercial crisis which has cast a shadow over so many great enterprises—just now under a cloud, and yet so small are stocks, so limited have purchases been of late, that it is really matter of surprise that so many orders are being received. The trade is quiet, but presents every indication of soundness, and it only needs that confidence should be restored, and that the wheels of commercial enterprise, just now locked by distrust, and 10 per cent., and fears of war, should once more move for activity to be resumed. The Hardware Trades are active, and the Australian demand is improving, whilst there is an improvement in the trade with the East Indies.

It is extremely satisfactory that the Government is about to take steps to ascertain in an impartial manner the actual facts as to the consumption of coal in the nation. It is always desirable to know the truth; it allays groundless fears, and it excites necessary precaution. The necessity for an impartial, calm enquiry is the greater from the want of even adequate formula in which to express the elements of the question. The rival statements put forward may be less inconsistent than they appear when the standard of consumption—and of accelerated consumption—are ascertained, and also the depths to which the available seams of coal are supposed to descend by the respective calculators are understood. What we want really to know is, what are the seams of coal at certain depths, how far those respective zones of depth are worked out, or when they will be exhausted, so that we may say not merely how long we may have coal, but at what rate its cost of abstraction will increase, which is a vital element in the question. The *Mining Journal* cannot have a graver question to consider.

Allusion has been made to the successful manner in which Mr. Rupert Kettle, judge of the Worcestershire County Courts, has acted as umpire in laying down rules, and applying them, with a view to avoid strikes between the men employed in the building trades and their masters. Mr. Kettle has published an admirable pamphlet on the subject, which is a most important contribution to the literature of the question, and which is eminently calculated to promote the mutual understanding so necessary between men and masters, and which can alone prevent the vast evils of trade disputes, which are now so serious a source of loss to the country.

On Tuesday Mr. R. W. Hand, under-sheriff, and a jury of commercial and scientific gentlemen, held a sitting at the Swan Hotel, Wolverhampton, to assess the damages in a claim for compensation for damage by mining operations, in which Sir Horace St. Paul, Bart., was the plaintiff, and Messrs. J. and H. Haines the defendants. Mr. Motteram, of the Oxford Circuit, appeared for the plaintiff, and Mr. Mathews, of the same circuit, for the defendants. The jury were spared the trouble of hearing the case by a proposal for settling the questions at issue being made by Mr. Mathews, which was ultimately agreed to on the part of the plaintiff. The case for the plaintiff was as follows:—The defendants are the lessees of the Willingworth Colliery, at Sedgley, belonging to the plaintiff, and this colliery adjoins the Coppice and several other collieries, also worked by defendants, and is in the deep of the other mines. Sir Horace St. Paul and his ancestors, who worked the colliery some 40 years back, left a rib or barrier of mine between the Willingworth Colliery and the Coppice Colliery, so as to protect their property from the accumulation of water from the adjoining mines; and when the former colliery was leased to the defendants, in 1846, for a term of 21 years, Sir Horace had an express stipulation inserted in the lease that this boundary rib should be preserved, and facts were adduced showing the perfect cognisance by the defendants of the necessity of this provision. Within the last few months, however, it was discovered that the defendants' workmen had been working through the Coppice pits, and had also cut through the barrier rib or boundary, which had hitherto kept out all foreign water from the Willingworth Colliery, and the defendants had found it necessary to erect a pumping engine at the Coppice Colliery to clear out the water. The result, it was feared, would be that Sir Horace St. Paul would be unable to get the lower mines by reason of the water, which had been and was flowing in. The value of the thick coal taken out of the rib was estimated at 265*l.*, and the consequential damages were laid at 20,000*l.* It was agreed that the defendants should pay 205*l.* for the coal taken away, and also stop up the passage they had driven through the boundary rib, and continue working their pumping-engines at the Coppice Colliery, for the purpose of keeping the water down, and preventing it from forcing its way through the barrier, for the term of 14 years. Their lease expires in 1868.

Messrs. Hartshorne and Ward, iron merchants and chain manufacturers, of Dudley, have offered to pay 10s. in 1*l.*, 8s. at once, 2s. 6d. in six months, and 2s. 6d. in twelve months. The creditors took time to consider the proposal, and to-day accepted it, appointing trustees to look after their interests in the estate, as security for the payment of the dividends.

The Staffordshire Potteries Waterworks Company has again paid a dividend at the rate of 6 per cent. per annum. The company is vastly extending its operations, so as to meet the increasing wants of a most growing district.

MACHINERY AT THE STAFFORDSHIRE INDUSTRIAL EXHIBITION.—The department of Machinery at this Exhibition, which was opened at Hanley on Monday, contains several interesting objects. Mr. R. Thomas, of the Clough Hall Ironworks, Kidsgrove, shows the following working models, of his own invention:—A model of patent self-acting squeezers for blooming puddled iron, with a bloom of puddled iron shingled by this patent, and a portion of a nailed sheet rolled direct from the squeezers. The squeezers consist of two drums, with ratchet teeth, one being about 1 in 10 larger than the other, and the inventor claims for the machine that it produces a bloom much sooner than a forge hammer; that its capacity is greater than that of a forge hammer, for it will shingle for from 20 to 25 furnaces; that the drums neither carry cinder nor get hot; that the ends are equally sound with the other part of the bloom, causing less waste at the shears; and that it will "upset" all sizes of blooms alike. A model of a lifting jack, for tipping coal and other box wagons. A model of a pillar to support a roof and carry a winch, that can be set to any point of the compass, for hoisting heavy weights, for iron and other manufacturers. A model of an iron or steel equilibrium and reversible ship's rudder. A model of an apparatus for rolling railway switch points and other taper bars, doing away with the necessity of planing, and thereby weakening the switches. A model of a 30-ft. straightening plate and rack for the contraction of angle and other iron of unevenness of section, which is liable to distortion by cooling. This rack can be set from a level to any degree of curvature, up to 1 in. per yard, either concave or convex. Mr. J. D. Frazer, Wednesbury, exhibits a railway chair, giving a bearing of 10 in. to the rail (double the width of an ordinary chair), which will prevent the springing of the rail; it will not cut the sleeper, can be used with or without a wooden slip, requires no keys, and can be removed without moving the rail, by turning the chair half round, and sliding it off the sleeper." Messrs. Book, of Burslem, exhibit at work their new press for making earthenware plates, dishes, and other articles. The process is similar to that adopted by Messrs. Minton and Co. in the manufacture of wall tiles—the conversion of powdered clay into a solid body by great pressure. In this case the powdered clay is placed in a brass mould forming the outside of a dish or plate, and by means of a screw a corresponding die, forming the inside of the dish or plate, is brought down upon the powdered clay with a pressure equal to 10 tons. The dish, on being taken to the mould, is trimmed round the edges, and is then ready for the biscuit oven, the ordinary drying process being unnecessary. Mr. Warner, engineer, of Hanley, exhibits his steam machine for making basins, cups, and other articles. A lump of clay being thrown into the mould, a revolving profile is brought down upon it, and the cup is instantly formed. A boy can work the machine, twelve of which can be superintended by one man.

DERBYSHIRE, YORKSHIRE, AND LANCASHIRE.

MAY 24.—The Whitsuntide holidays have led to an almost total cessation of business during the first half of the week, and, generally speaking, the out-put of iron and coal in nearly all parts of the country will be very small indeed. At most of the ironworks in Derbyshire the orders in hand are fully up to the ability to supply, and in some instances rather more. Pipes, in particular, are in good request, whilst the heavy plate works are doing a very large trade. Recent improvements in armour-plates and steel rails cause those branches of the trade to be busy in the extreme; whilst the strong probability of war breaking out almost immediately between Austria on the one hand and Prussia and Italy on the other, cannot do otherwise than create a very large demand for plates for land batteries and ships. Orders for heavy ordnance are also coming to hand freely, and this branch of the trade promises, in the present state of continental affairs, to be more than usually brisk.

In Sheffield and neighbourhood trade in several branches is not so brisk as it has been, and the uncertainty existing as to the probable course which will be taken in the American Legislature with regard to the demand made by the Pennsylvanian ironmasters for a prohibitive duty on iron, plain and manufactured, causes exporters to act with great caution, more especially as there is already large stocks of goods in New York and other leading towns undisposed of, and which, under present circumstances, are not likely to command a very good market. Makers of heavy plates and castings are busy, whilst the lighter branches of the Sheffield trade are comparatively quiet. The demand for nearly all qualities of steel continues good, both for home consumption and for the continental markets. Between Sheffield and Leeds most of the ironmasters are tolerably well off for orders; still, in some of the large establishments business is scarcely so brisk as it has been. At Elsecar there is only a limited number of puddlers at work, and there is little or no alteration in the state of affairs which has for some time past been the rule at those extensive works, and in relation to which there has been all sorts of rumours, relating to a dissolution of partnership, the secession of the manager to take the control of the new works about to be established at Carlton, &c. The demand in South Yorkshire for steam coal continues good, and a large tonnage is being forwarded to Sheffield, Leeds, and into Lincolnshire to the iron-making establishments there; whilst to Hull, Goole, and Grimsby, the Manchester, Sheffield, and Lincolnshire Railway are also taking a large quantity. The accommodation afforded by the railway company for transport from the last-named port to the North of Europe is such as must ensure a very large increase in the trade from that place. In addition to several new and powerful steam-ships which have been put on this season, there are a large number of sailing vessels engaged in the Northern trade, and which, will be largely called into requisition by those engaged in the export trade. The collieries in Manchester, Sheffield, and Lancashire line of railway are doing a good business, there being a very brisk demand for engine fuel and slack for coke-making purposes. At Darfield Main all the coal raised finds an easy market, but the company for some time past has been crippled to a considerable extent, owing to a clause in their agreement, compelling them to take the coal at a distance from the workings, instead of that nearest to them, belonging to a different proprietor. The matter is now under arrangement, and it is expected that an agreement suitable to the parties interested will be arrived at. The company alluded to are putting down powerful machinery and boilers at the bottom of the colliery, for the purpose of drawing the coal from the workings, and doing away with a great deal of horse-power, which will be a very great advantage in so large a concern. The demand for coke is brisk in the extreme, and any quantity finds an immediate market. At the patent coke establishment at Silkstone, under the able management of Mr. Clayton, the entire range of 60 ovens are kept fully going, turning out a vast quantity weekly of the finest coke to be found in the district, which is forwarded to the Fordingham Iron Company's Works, in Lincolnshire. Close to the ovens it is said that the colliery belonging to Messrs. Kersop and Bambridge will shortly be put in operation, after remaining idle for a considerable time.

At the extensive works at Penistone (Cammell and Co., Limited) there is a large business being done in steel-rails, tyres, and Bessemer steel for home and foreign consumption. Although only established a few years, the trade has increased to such an extent that the premises are fast assuming colossal proportions, providing work for some hundreds of hands in a district where the iron trade was formerly unknown. For half a century, up to a very recent date, Penistone was known as the "finished town," in consequence of no new buildings having been erected during that time; but matters have changed so much by the introduction of the iron and steel trade that a very few days since 300*l.* an acre was refused for some waste land that seven or eight years ago would have been willingly parted with for 80*l.* per acre.

In the North Riding of Yorkshire business is rather quiet, and, although at first it was thought likely that the stoppage of Messrs. Overend, Gurney, and Co. might affect some of the firms in the iron trade, such has not been the case—at least, to any appreciable extent—although the list of shareholders includes several well-known names in Darlington, Stockton, and Northallerton. At the market at Middlesbro', on Wednesday, there was only a moderate business done, and prices were, if anything, less than those given last week, the quotations being—buyers, mixed numbers warrants, 47s.; sellers ditto, 49s.; No. 1, g.m.b., 53s.; No. 3, g.m.b., 50s.

The Clay Cross Company have staked out ground for a new colliery, between their present works at Clay Cross and Morton, and the pits will be sunk forthwith. The Tapton Coal and Iron Company are pushing forward the operations for clearing the mine of water; but they have met with greater difficulties than were at first anticipated. The other new pits are much in the same state as last reported.

Mr. Thomas, manager of the West Cumberland Ironworks, being about to leave for Stockton, the workmen presented him with a very handsome testimonial of their regard, consisting of an electro-plate tea and coffee service, having the following inscription:—"Presented to Mr. Rees Thomas, blast-furnace manager, by the workmen of the West Cumberland Hematite Iron Company, at Workington, as a token of their sincere respect, on the occasion of his leaving the employ, May 18, 1866."

The question of the EXHAUSTION OF OUR COAL SUPPLY is now being pretty generally discussed in nearly all coal-producing localities, and there are very few practical men who at all concur in the vaticinations of Mr. Stanley Jevons. Still all agree that it is of the utmost importance that a complete survey should be made, as there can be no doubt of there being immense tracts of country where the coal measures have not been recognised or defined. The notice of motion of Mr. Vivian on the subject that an address be presented to Her Majesty for the issuing of a Royal Commission "to investigate the probable quality of coal contained in the coal fields of Great Britain," &c., will, if adopted, clear up the point alluded to. One of the principal districts which will require the greatest attention of the surveyors and geologists engaged will be what is called the Yorkshire coal field, which, unlike those of Northumberland, Durham, and South Wales, has not yet been explored. Instead of being called the Yorkshire coal field, says an eminent mining engineer (Mr. Woodhouse), it would be more correctly described as the Midland coal field, which extends from Nottingham to Leeds, the western limits being accurately defined, its eastern "a vast unexplored mine of natural wealth." Although these remarks were made some time since, they still hold good, and there is every reason to believe that a complete survey will show that the quantity of coal in the kingdom at a workable and profitable depth is immensely larger than has been asserted.

In the vast field alluded to, including—through Derbyshire, Nottingham, and Lincolnshire, into the Barnsley district, and thence to Wakefield and Leeds—a distance of some 80 or 90 miles, most of the collieries are of comparatively recent origin. Previous to the opening of the Midland Railway no coal passed across the Clay Cross ridge, but now hundreds of thousands of tons are sent from that district every year. Seventeen years ago the entire coal traffic in the Midland scarcely reached half a million tons per year, and now it is upwards of six-and-a-half million tons. In the Barnsley district, where the seam is considered the most valuable in the coal field, there are very few pits which have been worked for any great number of years, whilst there are miles of coal in a direct line on nearly all sides which have not yet been tapped. In other parts of the district, to the north, there are also vast tracts of coal untouched. The notion has long since exploded that the coal terminated where the magnesian limestone began, or, at least, was at such a depth as to cause it to be unworkable, so that from Yorkshire to Nottinghamshire there is an immense field of coal yet to be opened, capable of continuing the supply at the present increasing rate for many hundreds of years. So vast, indeed, is it, that Mr. Woodhouse, a gentleman who stands at the very top of his profession, remarks, in speaking of the district alluded to, that "it must be for the enterprise of 100 years to come to *test* the extent of the vast field of wealth now reposing under that mighty formation, the magnesian limestone."

But there are other matters to be taken into consideration with reference to the demand for coal increasing at the rate it has done. Who can predicate what science will bring forth in the next 20 or 30 years with regard to a new motive power? Sir W. Armstrong calculates that there is thirty times as much coal used as there ought to be if we had perfect heat engines, whilst it is a patent fact that in our manufactories and dwelling-houses we consume nearly twice as much coal as we ought to do by not consuming the smoke, but allowing it to be not only a great and serious loss, but a life-destroying nuisance. Already there are numerous contrivances for consuming smoke and economising fuel, and it is not too much to expect ere long to see inventions of a simple character brought into general use, and our large towns as free from smoke, and with an atmosphere nearly as clear, as a country village. In most of our manufacturing towns, including Sheffield, Leeds, Newcastle-on-Tyne, and Liverpool, the powers given to governing bodies under local Government Acts are being put in force with the best results, and whilst the smoke nuisance is being abated the rates of mortality will be sensibly lowered. Improvements in machinery are of almost daily occurrence, and there is no reason to suppose that engines may not be so constructed as to some extent carry out the idea of Sir W. Armstrong, or that a new motive-power may not be discovered, and to avert the collapse of England's greatness in 100 years, even supposing that Mr. Jevons is correct. As it is, there are few persons connected with our coal mines in the country who agree with his statement, although admitting his views are put forward with great ability.

REPORT FROM NORTHUMBERLAND AND DURHAM.

MAY 24.—The general feeling here has, during the past week, undergone a very considerable change, and fears are pretty generally entertained in commercial circles that a period of depression is at hand. The Iron Trade, and also the Iron Shipbuilding Trade, are certainly, to say the least, very quiet, and the same remark applies to the large alkali works and general engine works on the Tyne. The Coal and Coke Trades have not, as yet, been affected, and the business remains good for these staple products. Considering the immense demand that has for some time existed for these articles, and the total want of stocks generally, it may be expected that these trades will not be affected for some time to come; indeed, it is scarcely expected that they will feel the depression at all. There is a great scarcity of men at many of the collieries in Durham, both miners and mechanics; but, as a few men have been paid off already on the Tyne at the manufactories, it is quite possible that, should the depression continue or increase at the latter works, a considerable change may be experienced in a short time.

A meeting of delegates of the Northumberland Miners' Union was held on Saturday, when the routine business of the society was transacted. A resolution was passed that no men should come out on strike for an advance of wages at any colliery when the average wages exceed 6*s.* per day. This appears to be a wise decision, and it shows clearly the high rate of wages prevailing at the present time.

A strike has taken place at the West Cramlington Colliery, which continued a few days, and has only been partially settled yet. The men have come to an agreement with their masters, but only part of the boys have agreed, so that the work has been seriously impeded. Should an early settlement not be arrived at the disaffected hands will have to be got rid of, and an attempt made to get others.

The Gateshead Exhibition has, so far, been most successful. A large number of works of art, and also models of engines, machinery, &c., illustrative of the mining and manufacturing industry of the district, are exhibited. The most important model of an engine is that shown by Messrs. Murray, the eminent engine makers of Chester-le-street. This firm has been well-known for a great number of years as engine builders, and more especially as builders of winding and pumping engines, and it is, therefore, to be regretted that they do not exhibit models of these engines. The model exhibited represents a hauling engine for underground purposes, and it is an excellent model of a most useful first-class engine. It is, of course, a double horizontal engine, the two engines working one main shaft, and by means of spur-wheels the motion is communicated to other shafts, so as to work four drums. In addition to the spur-gear usually employed to communicate the motion, and also (generally) increase the power, this model also shows the application of friction-wheels, introduced, we believe, by an eminent engineer of Glasgow. At one end of the main shaft are placed spur-wheels, for the purpose of driving the shafts, on which are placed the drums, and at the opposite end of the main shaft are placed friction-wheels, which effect the same purpose as the spur-gear; but we are not able to state which mode is the best as to safety or economy—that is, for general application. Engineers appear to differ as to this, but generally they do appear to agree as to the superiority of the friction-wheels where the strain is not too much; but for heavy work, such as winding wagons up steep inclines, the old system of spur and pinion appears to be preferred. The engine is adapted for hauling coals by means of tail ropes on a main level, and in *two directions* from a shaft. The apparatus for putting the drums into and out of gear is very complete and effective. The system of underground hauling by means of this engine is, there can be little doubt, the most expeditious and most economical yet adopted; it has been in operation for many years in Durham, but has been applied more extensively and on a larger scale of late, and much general interest has been drawn to it by the paper lately read before the Northern Mining Institute, and the discussions which have taken place thereon. That great desideratum, a locomotive engine for underground purposes, has not yet been discovered, and until that occurs this hauling engine will no doubt occupy a good place in the underground working of collieries.

The steam striker for a smiths' shop, by David Davies, of Crumlin, Monmouthshire, is a very clever arrangement of a steam-hammer, it being placed in the centre of a shop, and surrounded by several anvils, the hammer and apparatus being so arranged that it can be turned round to work on any anvil required. The model of a steam fan-saw for sawing hot iron, by Mr. Johnson, of Jarrow, is a very ingenious and useful machine, and it is in constant use in some of the large ironworks here.

There are likewise exhibited mortising and tenoning machines for mortising, boring, and tenoning woodwork of all kinds, by William Bissel, of Wolverhampton. We have the machines here in actual working order, and specimens of their work also. These machines are very good, and have lately attracted considerable attention. Similar machines have indeed been introduced lately on the Tyne, and they will shortly be extensively used. Their merits and the state of the labour market will certainly bring this about, as woodwork for houses can be produced at considerable less cost in this way than by manual labour, and the same remark applies to railway wagons and trucks. The framework for the latter articles will shortly be produced in immense quantities by steam-power in this district. The machines of Mr. Bissel are adapted either for hand or steam-power.

Specimens of Safety-lamps are shown by Messrs. Abbot, of Gateshead, and they are all of them both strong and portable, and are sold at a reasonable price. The lamps most generally in use in coal mines are shown—the Davy, the Stephenson, the Clanny, and the Mozard lamps. All of them are readily portable, and just as they are constructed for actual use, and the Stephenson especially we consider to be the best made lamp of that description ever offered to the public. Several other models are shown of colliery and other engines, and also a model of the surface and underground arrangements at a colliery, and the apparatus connected with the working of the coal tubs, &c., in both cases.

TURBINES.—Messrs. Gentle and Allmark, of Oldham, have patented an improved turbine, which consists of a hollow shaft, with a raised chamber in the centre, in which chamber are placed or cast a number of tubes or water-passages, in a curved form, gradually receding from the centre, the whole forming a circle, of which there may be one or more. The outer ends of the tubes or water-passages are reduced, so as to make in the aggregate a less area than the hollow shaft, thus causing the water to be well backed up in its passage through the tubes, and causing the shaft to rotate. In some cases they place over the tubes a chamber, with a passage for conveying away the water after it has passed through the tubes, the chamber being provided with one or more air-valves, to assist the water in its exit. The water is admitted through each end of the hollow shaft into the raised chamber first mentioned, from whence it passes through the tubes, either into the last-mentioned chamber, or into any other channel of escape.

STEAM HAMMERS.—An invention has been provisionally specified by Mr. P. Pilkington, of Accrington, which consists, first, in making the anvil block of steam-hammers movable by rack and pinion or other suitable means, and in applying two or more swage blocks to the anvil block. By this arrangement each swage block can be brought under the hammer head. The second part of the invention, which is applicable to steam-hammers, and to other steam-engines, consists in an improved arrangement of levers and eccentric to work the slide-valve for admitting steam to the cylinders both above and below the piston. The valve-spindle is jointed to a beam, which vibrates on a moveable fulcrum, the position of which is governed by an eccentric; the beam above referred to is worked by a lever actuated by the piston-rod, or other convenient part of the engine. On this lever is a sliding-block, the position of which is varied by hand; by this arrangement the length of the stroke of the piston-rod can be varied, and the level through which the piston-rod moves can also be varied.

MANUFACTURE OF STEEL.—Messrs. Ferguson and Miller, of Glasgow, have patented an invention which relates chiefly to the production of steel having certain properties similar to those produced by malleable iron—the properties of being easily tempered and hardened. The improved steel is possessed of much more ductility, malleability, and toughness than ordinary steel. In the manufacture of steel under this invention, Messrs. Ferguson and Miller place on the hearth of an ordinary puddling or other suitable furnace, from 2 to 2½ cwts. of hammer or flue cinders, or a mixture of these, after which 3½ cwts., or thereabouts, of ordinary cast or pig-iron is introduced, and the furnace doors are then closed, so that the fire may be urged. As soon as the charge of metal is observed to liquify at the corners of the pigs, and commences to run down, they then break up the pigs or pieces of the charge, which by this time will have become of a pasty consistency, and the charge is then evenly spread over the hearth. After this part of the operation is concluded the stopper is to be put up, and the temperature of the furnace raised until the whole is at a white heat, and in a semi-fluid state. At this stage a quantity of fresh coal is to be put upon the fire, and the damper put down during the whole of the succeeding operations. To the charge in the furnace is now to be added 38 ozs. of a chemical mixture, consisting of lampblack, 16 parts; common salt, 8 parts; carbonate of manganese, 5 parts; black oxide of manganese, 3 parts; and dry sulphate of soda, 6 parts; and the workmen continually stir the charge until the chemical mixture is thoroughly commingled therewith, after which the puddling and rabbling up of the charge is continued in the ordinary manner, care being taken that the entire charge is baffled up before any of the balls

are removed to the shingling hammer. Should it occur that at this stage of the process the furnace is darkened by the fresh fuel previously introduced and the lowering of the dampers at the commencement of the commingling operation, so as to prove a hindrance to the workman, the damper may be slightly raised, so as to give the necessary light within the furnace. Although the foregoing are the proportions which they have found to answer well, they do not confine themselves to the exact quantities given, as they may be varied, and some of them added in an uncombined state, such as soda and sulphuric acid, and muriatic acid or carbon, in any other form than lampblack, so long as the essential feature of the invention is maintained.

WHAT IS COPPER USED FOR IN BIRMINGHAM?—No. II.

The malleability, ductility, and tenacity of metallic copper are its chief virtues, and are those which render it applicable to so many purposes that it ranks next in point of utility to iron. It is a valuable metal, because it is not found in Nature in excessive quantities, either in a mineralised or a metallic form; because it is not easily mined; because it is not easily melted; and, lastly, because it is not easily manufactured. It is a metal of which about 45,000 tons are produced annually in the English copper smelting works from home and foreign ores, regulus, and slab, and of which we import more than 25,000 tons every year in a metallic state. It is an article of which, as has been before stated, England has annually exported and consumed for the last three years more than 60,000 tons. Export and consumption, then, are the points we have to consider, and which we will now proceed to do, taking for our purpose that quantity which is consumed first.

Birmingham, which is the chief centre of our metallic manufactures, relieves us at once of one-third of our total of 60,000 tons; in other words, she buys for manufacturing purposes 20,000 tons of copper per annum. She uses this quantity somewhat in the following manner—say, 7000 tons for making yellow metal, 6000 tons for making tubes of copper and brass, 4000 tons for making wire, and about 3000 tons for making brass and other metallic mixtures. Now, the first of these purposes to which Birmingham applies this copper—to the manufacture of yellow metal—introduces a branch of the subject which is so extensive that it will be best to subdivide it under the following heads:—First, that metal which is made for home purposes, and particularly for sheathing ships; secondly, that which is exported for sheathing ships abroad; and thirdly, that which is exported in the form of yellow metal sheets not used for sheathing ships. This last must, for the moment, be omitted, as it most properly belongs to the export branch of the subject. Turning our attention, then, to that part of the yellow metal trade which is confined to the sheathing of ships' bottoms with yellow metal sheathing, we have a single branch of the subject which is of no inconsiderable extent and importance. Formerly, and not so many years ago, either, although we speak of a time when iron ships were not in the repute they now are, the bottoms of ships for long voyages were invariably covered with thin sheet copper. The great expense of this copper sheathing led to many trials of mixed metals as a substitute for it, and at last Mr. Muntz discovered that the mixture of copper and spelter, which has ever since borne the name of Muntz's Patent Yellow Metal, and which consists of 62 per cent. of copper and 38 per cent. of spelter, will resist the action of salt water as long as pure copper; and possesses this great advantage over the copper, that it costs 1¼d. per lb. less than pure copper. The importance of this yellow metal trade is shown in the fact that there are sheathed in all the ports of England rather more than 1000 ships per annum. At first sight this number may not give an adequate idea of the quantity of metal so consumed; but when it is remembered that, as a rule, all those ships which are below 300 tons burden are not sheathed at all, and that, therefore, the 1000 ships are made up of vessels the tonnage of which rises from 300 to 3000 tons each, the quantity of metal that it must require to cover their hulls with, even the thin coat of metal they take, immediately assumes an important phase. It will be safely within the mark to estimate the quantity of metal disposed of in sheathing ships in this country at 6000 tons annually; of this Birmingham makes at least one-half, and the remainder is manufactured almost entirely by the copper smelters in their works at Swansea and Liverpool.

The yellow metal sheathing trade has, no doubt, been materially reduced by the substitution of iron for wooden ships, and this despite the enormous increase of our mercantile navy. Another cause of its diminution has been the successful substitution, or rather application, of tar mixtures and enamels to the bottom of small ships going, however, short voyages in the place of a suit of metal. It must not be understood that the demand for yellow metal has diminished of late years, for it has not, as will be seen in speaking of the export trade, for it will be there shown that a great demand has sprung up in the East for yellow metal sheets, as also a great demand in the same quarter for yellow metal sheathing for metalling the bottoms of that large fleet of ships that trade exclusively between India, China, and Australia. This particular branch of the trade has greatly increased of late years, and will, probably, continue to increase. One customer for yellow metal England has, however, lost altogether, and it is one that will, probably, never return again to this market as a buyer—we speak of the United States. To that country, not very long ago, we used to send a large quantity of metal for sheathing the ships of the American mercantile navy; now, however, we do not send any to that market, for a metal identical in composition and character to that we manufacture is now being produced in more than one spot in the United States, and of which it must be admitted, to the credit of those who produce it, that it is in no way inferior to the best of our English makes. Up to the present time the Americans have only produced just sufficient for the wants of their own navies; this is not, however, likely to last long, and we must fully expect to find American yellow metal competing with English metal in the Eastern markets. Space does not permit that we enter into the subject of the qualities of yellow metal, but it is a point of great interest and importance, and one that would handsomely reward the careful investigator. It is a curious fact that no two suits of metal, even from the same manufacturer, and when we might reasonably suppose that the composition would be identical, will wear alike. One suit, when taken off the ship after two or three years' wear, will be as brittle as paper; the other will be as tough as ever, but so completely honeycombed as to be no protection to the ship's bottom. To solve the reasons of this irregular wearing would be to initiate a new era in the manufacture of yellow metal.

The second purpose for which Birmingham uses copper in the order of amounts, is for making tubes, and is a branch of the Birmingham trade which has increased in direct proportion to the increase of steam communication, both on land and by water, as well as in the increased application of steam machinery as an assistance to, and substitute for, manual labour. Iron is, of course, the chief requisite in the manufacture of the steam-engine; but there are parts of every such machine for which iron is totally unfit, and for which copper is especially adapted; those parts are the fire-box plates and the tubes in connection with the boiler. Every locomotive engine requires in its construction from ¾ to 1 ton of brass tubing, and of brass metal covers and bearings. Every marine engine requires several tons of these same tubes, besides a considerable quantity of brass for bearings, &c. Thus we can understand how in the increase of railway communication, not only in this country but throughout the world, how, also, in the increase of our steam marine, we gain large customers for copper in its pure and alloyed states. Every new railway that is started is a new customer for copper, as well as for the brass tubes mentioned above, since, in the construction of every such engine there is consumed from 1¼ to 1½ ton of copper in the form of locomotive fire-box plates. These last are not, as a rule, made in Birmingham, but by the copper smelters at their works near Swansea, and by other manufacturers throughout England.

The 4000 tons which are used in Birmingham for making wire is an item which is more intelligible than any of the others to the general public. Brass wicker-work of all kinds consumes a good deal of wire, and the manufactories of pins absorbs a large proportion of the wire made. Some wire is, of course, exported, but that branch of the trade is not of sufficient importance to be worthy of special details. The last amount which figures in the list of the uses to which Birmingham applies the copper she buys, and to which 3000 tons is appropriated, includes the making of brass ingots for other markets, and for the manufacture of those various mixed metals, which do not particularly interest us now. In concluding this short summary of the purposes to which the 20,000 tons of copper annually carried into Birmingham is applied, one's attention is directed to the importance of England's maintaining her manufacturing prestige. Powerful competitors she now has on the Continent in all the branches of copper manufacture we have mentioned. Let only the French and Belgian rollers be in a position to obtain the copper bars, ingots, or cakes at the same price as the Birmingham manufacturers, and we immediately find that they produce all the forms of manufactured copper as cheaply, if not cheaper, than we can. Not long since the French locomotive engine makers carried away from the English manufacturers a large order for locomotive engines, simply because they tendered for the order at a lower limit than the English makers cared to. As it is not, however, our present object to compare English manufactures with those of the Continent, we will pass on to enquire what becomes of the 40,000 tons of copper which is annually consumed or exported over and above the 20,000 sent to Birmingham.

GUN-COTTON AND NITRO-GLYCERINE.

In a highly interesting article, contributed by Prof. Charles A. Seely to the *Scientific American*, the recent fatal explosions of nitro-glycerine are attributed to the possibility of its ignition through spontaneous combustion. Referring to a "mysterious" explosion, which he investigated, he remarks—The small size of the box, the absence of a smell of sulphur, and the terrific effects of the explosion, indicated something different from gunpowder. We search in vain for some relic of the box or its contents. I directed enquiries most minutely, and particularly with reference to the odour. Unfortunately, none of the gentlemen were familiar enough with the odours, which we of the laboratory know so well, so as definitely to describe that which they had perceived; but I was able to get so many positive statements, that when they were put together I felt warranted in concluding that the odour was that of nitric gas, and that the yellow smoke or flame was nitric gas. Under this state of things, I was inclined to believe that the box had contained gun-cotton, and that here was a case of spontaneous combustion, with which I am quite familiar. As ordinary gun-cotton, however, alone could not produce the mechanical effects shown, it was necessary to suppose that it was combined with chlorate of potash, or that the box also contained a fulminate. This theory proved to be incorrect, but its plausibility was singularly confirmed, when next day it became known that nitro-glycerine, a substance so much like gun-cotton, was, in fact, the explosive, I made a very near guess. * * * * * I am familiar with the spontaneous combustion of gun-cotton. I am acquainted with the particulars of several cases which occurred unintentionally, and the conditions are now so well understood that we know how to bring it about at will, and with certainty. The conditions are simply that the cotton, slightly acid, be kept so that the acid fumes and the heat, generated by the reaction of the acid, shall be prevented from escaping. For example, take an ounce of gun-cotton, slightly acid, and contained in a bottle, and pack in with cotton wool, or saw-dust, in a close box; within a few weeks, in warm weather, it will be pretty sure to take fire. The spontaneous combustion theory completely explains the many "mysterious" explosions of gun-cotton, which occurred within a few years after its discovery. The constitution and properties of gun-cotton and nitro-glycerine are so similar that little argument is necessary to show that the latter also is liable to spontaneous combustion. To put the question, however, beyond dispute, I have made experiments, which demonstrate that nitro-glycerine is subject to the same accidents from spontaneous change as gun-cotton. * * * In the investigations of this nature I would recommend that enquiries be most particularly directed concerning the temperature to which the packages had been exposed, and as to the escape of acid odours or fumes, previous to the explosion.

Many seem to suppose that nitro-glycerine, being proved to be a dangerous substance, can no longer be used. Congress, I see, are proposing to make its manufacture and sale a penal offence. The people and Congress, nervous under a panic, perhaps reasonable, are yet greatly in error. We cannot afford to allow a substance so useful as nitro-glycerine has proved itself to remain unused; we cannot confess that our science and inventive skill are unable to find the means of making it safe. I venture to predict that, in a short time, nitro-glycerine will be esteemed far less dangerous than gunpowder, and that in a great measure it will supersede it; within a few years the annual consumption of nitro-glycerine in the United States will reach a million of pounds.

Gun-cotton was at first looked upon with as much dread as is now nitro-glycerine; the accidents from it were quite as terrific as those from nitro-glycerine, and they were also then quite inexplicable. I quote a few cases. In 1847 the gunpowder factory of Hall Brothers, in England, where they were making gun-cotton, blew up, killing every man at work in the place. On the 17th day of July, 1848, a similar explosion of over 3000 lbs. took place at Bouchet, near Paris; walls from 18 in. to a yard in thickness were reduced to powder from top to bottom, and heavy weights were thrown to a great distance. An explosion took place in a magazine at Vincennes, which no one had entered for several days previously. An explosion of 300 lbs. took place in Connecticut under precisely similar circumstances. But lately what a change! Wherever there is a photographic artist you may find gun-cotton. It has been manufactured in all quarters of this city. I have myself made tons of it. During our late war thousands of pounds were sent by Adams' Express from this city to a neighbouring State, and the business was conducted in such a way that there was less risk from fire than in the ordinary handling of dry goods. It is only to our ignorance that such things appear dangerous: whenever we are forewarned we must learn how to be forearmed. Shall we banish edge tools, and steam, and gunpowder on account of the ignorance and carelessness that exist in the world? Let us rather look upon what we call accidents as indications of something to be learned, and something to be invented.

Now, the property of nitro-glycerine, which heretofore we have not understood, and which has rendered its storage and transportation dangerous, is its liability to spontaneous combustion; in other respects it is far safer than gunpowder. It is with great pleasure I feel able to announce, positively, that sure and simple means are known, and will be put in practice, to remove that danger, so that, shortly, nitro-glycerine will be thought of only on account of its eminently useful properties. In conclusion, the preparation of nitro-glycerine must never be instrusted to unskilful hands, and its transportation for some time to come should be regulated by suitable legislation.

NEW INVENTIONS.

PROVISIONAL PROTECTION for six months has been granted for the following:—
C. W. HARRISON, Oilberstein-road, Clapham Junction.—Improvements in obtaining copper and other metal from their ores. March 3. [May 4.
A. T. BECKS, Birmingham.—Improvements in the manufacture or treatment of iron.
H. K. YORK, Grangestown Ironworks, Cardiff.—Improvements in the manufacture of iron and steel. May 5. [coal or other minerals. May 7.
E. FIDLER, Wigan.—Improved machinery for holing, cutting, getting, and drilling
LETTERS PATENT have been issued for the following:—
F. TRACHSEL, Manchester.—Improvements in moulding, for casting steel, iron, and other metals. Nov. 25.
SPECIFICATIONS published during the week:—
Manufacture of iron and steel, 4d.; furnaces for manufacturing welded iron tubes, 8d.; distilling coal, &c., 1s. 3d.; manufacture of steel, 4d. L. DE FONTAINEMOREAU.

THE INUNDATION AT FURZE HILL WOOD MINE.—Reference was made in last week's Journal to a lamentable accident in Furze Hill Wood Mine, which resulted in the death of eight persons, and, unfortunately, there are four widows and ten children, which the calamity has altogether deprived of support. On behalf of these an urgent appeal is now made, and we trust that amongst the readers of the Journal it will be handsomely responded to. As will be seen from the advertisement in another column, the shareholders in the mine will subscribe liberally, and contributions have already been received from external sources, which, it is earnestly hoped, will be largely increased, so soon as the announcement that the subscription has been set on foot is known.

THE KIMMERIDGE CLAY.—For some months past borings have been in progress at Old Malton, with a view of obtaining a supply of water (for drain flushing) on the Artesian system. The bore at about 15 ft. entered the Kimmeridge clay of the Vale of Pickering, and a depth of 450 ft. has now been reached, the clay being as hard and dry as ever, with no signs of moisture. Additional rods are being prepared for the purpose of going down to 500 ft. It is remarkable that at less than two miles distant water was obtained at 50 ft., and in two or three cases more distant at from 60 to 80 ft. At Malton the bore is close by the dip of the oolite limestone.

CLEVELAND IRON.—There is a general dulness prevading the iron trade of this district; that is, so far as relates to the manufacture of finished iron of every description, excepting railway bars and ironwork for railway purposes. Of the latter kind some of the firms are doing a fine steady business. Throughout the district there are a great number of the puddling-furnaces out, and for some time past little over one-half have been in operation; and even by this means the stock of puddled iron has increased in the hands of some of the manufacturers, in consequence of their mills not being sufficiently employed to consume it; this of course does not apply to all the works, as there are some that cannot get puddled iron made fast enough. In plates very little is doing; the same may be said of angle iron; of this description the best makers have very few, if any, orders on hand. We have heard that the Malleable Iron Company, Stockton-on-Tees, has entered into a large contract for the manufacture of heavy plates; and they are about to alter, or erect, the necessary appliances for the fulfilment of the contract. The millmen at Messrs. W. Whitwell and Co.'s Thornaby Ironworks, South Stockton, are still out on strike. They have now been out some thirteen or fourteen weeks. The difference is said to be trifling—only 2d. per ton, one-half of which the men are willing to forego; but the trade prospects at the present time are such that the masters feel themselves justified in resisting it. Through the accidental breaking of a crank of the fly-wheel, the works of Messrs. Fox, Head, and Co., Newport, have done nothing for the last four or five weeks. The accident was repaired a few days ago; but there is yet very little doing at the mills, there being little or no demand for plates generally.—*Darlington and Stockton Times.*

At a meeting of the shareholders and others interested in the affairs of Overend, Gurney, and Co., held on Wednesday (Mr. M. Coventry in the chair), convened for the purpose of taking steps for preserving the goodwill of the business, it was resolved, upon the proposition of Mr. Hoare, seconded by Mr. Pare, "That this meeting be adjourned, and a committee formed, with Mr. Kingscote as Chairman, to communicate with the directors and liquidators, and make a report as early as possible of their recommendation, and to take such steps as they may be advised and deem requisite to withdraw the petition from the Court of Chancery, or to get it to stand over with liberty to apply." A letter from Mr. David Barclay Chapman—a former partner—was read, referring to the operations of the old firm; and it was mentioned, upon the authority of Mr. H. E. Gurney, that the stoppage of the company was entirely owing to the look-up of 2,800,000*l.* in the transferred securities. The general tenor of the meeting appeared to be that no steps should be taken until some definite information had been received as to the actual condition of the company's affairs, and that, if possible, the old company should be resuscitated.

Messrs. Arthur Ashton, John Bigham, and Henry Woodfall have joined the board of the Mercantile and Exchange Bank of Liverpool.

NEW SULPHUR WELL.—In the boring of an oil well at Lodi, on the Wabash, a cavity was reached from which gas in considerable quantities came up, pushing the salt water before it. After the salt water was driven out, sulphur water continued to flow in a small stream. The well was sunk 4 ft. deeper, which opened new cavities, and the water increased to 10 gallons a minute, and it is now flowing 500 barrels a day of white sulphur! The water as it flows from the conductor is white; after standing awhile, it deposits a white sediment, and becomes clear. On being agitated it boils and emits gas. In mineral ingredients, disagreeable smell, and specific gravity, it is said to exceed the Lafayette Artesian—especially the sulphurous odour, and it is claimed it will rank with the most famous medical waters of the world.

NITRO-GLYCERINE.—It is well-known that this substance explodes at a temperature of 360°, and anyone desirous of testing this may do so by inserting a wooden tube, filled with gunpowder of slow combustion, in the oil; light the powder with a fuse, and the oil will be raised to the requisite degree, when explosion will ensue.

FATAL ACCIDENT AT FURZE HILL WOOD MINE.—APPEAL on behalf of the WIDOWS and FAMILIES, and of the persons dependent on the earnings of the seven men and one boy drowned at the Furze Hill Wood Mine, Horrabridge, on Saturday, the 12th May, 1866, by accidentally holing into some old workings which were not known to have existed. The above leaves four widows and ten children all utterly dependent, and one or two of the unmarried men assisted in the maintenance of their aged parents. The shareholders will subscribe liberally, but without the sympathy and aid of the public their efforts will fall short of what is required to render these unfortunate people temporary, to say nothing of permanent, aid. Contributions will be thankfully received on their behalf at Messrs. GILL, SONS, and Co., and the Devon and Cornwall Bank, Tavistock, and at the offices of the following papers:—*Western Morning News*, *Western Daily Mercury*, *Tavistock Gazette*, *West Briton*, *Mining Journal*, and by Mr. THOMAS HORSWILL, the purser, at Tavistock; Mr. W. H. ROWSE, 2, Brunswick-terrace, Plymouth; Mr. T. B. LAWS, 22, Great St. Helens, London. A committee is in course of formation, which, when completed, will be inserted in the above-mentioned papers, with a list of subscriptions then received.

SUBSCRIPTIONS ALREADY RECEIVED.

Sir Massey Lopes, Bart., M.P.	£15	0	0
Charles Norrington, Esq.	3	3	0
Mining Journal	2	2	0
Rev. Jos. T. Toy	2	0	0
Capt. Beadon	1	0	0
Other sums	4	4	0

ELLEN UNITED COPPER AND ZINC MINING COMPANY (LIMITED), ST. AGNES, CORNWALL.
At a SPECIAL MEETING of directors, held at their offices, in Manchester, on the 15th May, and reporting on the discovery of a rich lode of copper in the new shaft, yielding 27½ per cent. (as per assays), the directors have WITHDRAWN ALL SHARES AT PAR, and now offer a LIMITED NUMBER at a PREMIUM of FIVE SHILLINGS per share. The shares are considerably improving in value as the sinking on the lode proceeds.
We beg to refer you to the reports in the MINING JOURNAL of 12th and 19th May, from our agent, Capt. J. TONKIN, from which the following are extracted:—
"I have pleasure in informing you that we have cut a rich lode of copper in the new shaft; I sent samples to be assayed, the first produced 6¾ per cent., the second 14½, this when dressed produced 27½ per cent. This is a rich discovery at so early a date, and I may say it establishes the expectations we had in sinking the new shaft to try the lode under the Navvy pit, from which £60,000 worth of rich copper ore was raised in the former working."
Capt. THOMAS DELBRIDGE has inspected this lode, and says in his report—"It is a beautiful looking lode; I took some stones to Mr. William Andrew, of Redruth, they produced 14½ per cent. for copper; this I think is a fair sample of the lode in the bottom of the shaft. It is my opinion it will greatly improve as it deepens, the ore i s only 2 feet above the bottom of the shaft. It is believed that this lode is standing al l in virgin ground to the west of cross-course; if so, you are all right; this will come in parallel ground with the rich deposits of ore in the Navvy pit. If you work with spirit, and carry out the necessary operations, and drain the mine, I believe you will have one of the best mines in the district."
The directors recommend an early application for shares, to be made at the company's offices, 28, Princess-street, Manchester, where prospectuses and reports, with forms of application may be had, and specimens of the ore with map of the mine seen, and every information obtained.

EXTENSION OF TIME.
TEN PER CENT. GUARANTEED, with every probability of Twenty or Thirty, in the BUCKLEY MOUNTAIN, SANDYCROFT, FIRE-CLAY, COAL, AND IRONSTONE COMPANY (LIMITED).
Capital £40,000, in 4000 shares of £10 each.
Deposit on application £1 per share, upon allotment £2 per share; additional calls not to exceed £1 per share, at intervals of not less than two months.
For the convenience of shareholders, a limited number of paid-up shares will be issued, to which interest warrants at the rate of 10 per cent. per annum, for five years, will be attached. Earliest applications will have a preference.
Prospectuses, and every information, may be had by applying to Messrs. JOHN HITCHEN and Co., the Eastgate, Chester.

ISLE OF MAN.
THE MONTPELLIER MINING COMPANY (LIMITED).—
Incorporated under the Joint-stock Companies Act.
Capital £40,000, in 10,000 shares of £4 each. First issue, 5000 shares.
Deposit 10s. per share on application, and £1 on allotment. Calls not to exceed £1 per share, and at intervals of not less than three months.
DIRECTORS.
ALFRED W. ADAMS, Esq., Acting Attorney-General, Douglas, Isle of Man.
RICHARD SHERWOOD, Esq., Advocate, Douglas, Isle of Man.
THOMAS PALMER, Esq., 21, Cannon-street, Manchester.
JOHN MAGUIRE, Esq., 41, Hanging Ditch, Manchester.
EBENEZER TURNBULL, Esq., Harpurhey, Manchester.
JOHN JOUGHIN, Jun., Esq., Peel, Isle of Man.
THOMAS COTTIER, Esq., Peel, Isle of Man.
(With power to add to their number.)
BANKERS—Union Bank of Manchester (Limited).
Messrs. Dumbell, Son, and Howard, Douglas, Isle of Man.
SOLICITORS—Messrs. Slater and Barling, 4, Norfolk-street, Manchester.
SECRETARY—Mr. Joseph Taylor.
OFFICES,—17, CROSS STREET, MANCHESTER.

ABRIDGED PROSPECTUS.
This company has been formed for the purpose of acquiring a very extensive and most valuable mineral property, called the Montpellier Mines, situate in the parish of Bi-laugh, in the Isle of Man, which the directors have made arrangements to purchase, together with the whole of the materials, from the present proprietors, who now hold the grant from the Crown, and who, as a confirmation of their confidence in the success of the undertaking, and of the mines being speedily brought into a dividend-paying state, have taken the large sum of £6000 in *bona fide* shares of the company.
The present operations consist of an adit level, which is being driven on a large and powerful lode, running 40° west of north; this level commences at the bottom of Montpellier Glen, on the western base of Snaefell, and is being driven on to intersect a very fine and powerful north and south lode, which crosses a little higher up the glen, where, at the junction of these lodes, on the surface, considerable quantities of silver-lead ore have already been extracted, and at this part of the mine large deposits of ore are confidently expected, as has been sufficiently proved by the result of shallow explorations on the surface.
To effect the intersection of the junction of these lodes, it is intended to sink a shaft, and to drive forward the adit level as quickly as possible, by which means the mine will be drained to the depth of 100 fms. without the aid of pumping machinery.
The property is situated in one of the finest mineral districts of the island, being only a short distance from the Snaefell and Great Laxey Mines, and the strata being of the same geological formation, there is every facility in the sett for carrying on the most extensive mining operations, and the large river of Sulby, which runs through the property, affords an ample supply of water for every purpose required, at all seasons of the year. In submitting this undertaking to the public, the directors feel confident that there are few mines which hold out greater prospects of success, and have great pleasure in referring to the very satisfactory reports of the two able and experienced mining engineers, Capt. Edward Bawden, of the Foxdale Mines, and Capt. John Kitto, late of the Great Laxey Mine, copies of which may be had, together with the full prospectus and every other information, on application to the Secretary, at the company's offices, 17, Cross-street, Manchester; or to Mr. THOMAS COUPE, Strand-street, Douglas, Isle of Man.

BARROW HEMATITE STEEL COMPANY (LIMITED).
HEAD OFFICE AND WORKS,
BARROW-IN-FURNESS, LANCASHIRE.
BRANCH OFFICES,
No. 2, GREAT GEORGE STREET, WESTMINSTER.
No. 73, ST. VINCENT STREET, GLASGOW.
No. 44, QUEEN STREET, WOLVERHAMPTON.
DIRECTORS.
His Grace the DUKE OF DEVONSHIRE.—CHAIRMAN.
LORD FREDERICK CHARLES CAVENDISH, M.P.
HENRY WILLIAM SCHNEIDER, Esq., M.P.
WILLIAM CURREY, Esq.
FREDERICK ILTID NICHOLL, Esq.
JAMES RAMSDEN, Esq.—MANAGING DIRECTOR.
SECRETARY—Francis T. Rolls, Esq.
MANAGER—J. T. Smith, Esq.
This company was originally formed for the manufacture of steel under the Bessemer process, from the furnaces of Messrs. Schneider, Hannay, and Co.
The company have since arranged for the transfer to them, on the 1st January, 1866 of the Hematite Iron Ore Mines and Furnaces belonging to that firm.
In addition to the supply of iron ore and hematite pig-iron, and the manufacture of steel rails, which was the primary object of the company, they manufacture tyres and axles.
Plates for shipbuilding, boilers, girders, bridges, and roofs.
Bars, angles, guns, and forgings of every description in steel.

ROBERT LIBBY AND SON,
MINE AND SHAREDEALERS, &c., CAMBORNE, CORNWALL,
Recommend the undermentioned mines for immediate investment:—
West Great Work. East Lovell. Wheal Trannack.
New Clifford. Rosewarne United.
The above mines are quite safe for a great rise in price, and should be bought immediately. Mines inspected by competent agents.

RAILWAYS AND MINES.—Capitalists who seek safe and profitable investments, free from risk, should act only upon the soundest information. The market prices for the day are for the most part governed by the immediate supply and demand, and the operations of speculators, without reference to the *bona fide* merits of the property. Railways depend upon the traffic, expenditure, and capital accounts, the probabilities of alliance or competition with neighbouring companies, the creation of new shares, the state of the Money Market as affecting the renewal of debentures, and other considerations founded on data to which those only can have access who give special attention to the subject. Mines afford a wider range of profit than any other public securities. The best are free from debt, have large reserves, and pay dividends bi-monthly varying from £10 to £15 per cent. per annum. Instances frequently occur of young mines rising in value 400 or 500 per cent. But this class of security, more than any other, should be purchased only upon the most reliable information. The undersigned devote special attention to Railways and Mines, afford every information to capitalists, and effect purchases and sales upon the best possible terms. Thirty years' experience in mining pursuits justifies us in offering our advice to the uninitiated in selecting mines for investment.
MESSRS. TREDINNICK AND CO.,
No. 78, LOMBARD STREET, LONDON, E.C.

MR. CHARLES BAWDEN, INSPECTING MINE AGENT, ST. DAY, CORNWALL, OFFERS HIS SERVICES to CAPITALISTS SEEKING to INVEST in *bona fide* MINES.

Wadge Testimonial Fund.

WADGE TESTIMONIAL FUND.—Lancashire Insurance-buildings, St. Ann's-square, Manchester, May 3, 1866.

COMMITTEE.

CAMPBELL M. THOMAS, Esq., C.E., F.S.A., Dolps House, Redruth and Manchester—CHAIRMAN.
W. H. WILLIAMS, Esq., 7, Rook-street, Manchester—TREASURER.
R. SYMONS, Esq., C.E., Truro.
The Hon. EDWARD LEESON, the Temple, London.
Mr. Commissioner HOARE, Mountjoy-square, Dublin.
DAVID CRESSY, Esq., Brock Hall, Weedon.
Rev. W. G. LYALL, Castle Froome Rectory, Bromyard.
GEORGE HENWOOD, Esq., F.S.A., Malakoff House, Sandymount, Dublin.
ALEXANDER MILLER, Esq., merchant, Ashton-on-Mersey.
CHARLES FENNELL, Esq., M.D., R.N., H.M.S. "Doris."
Rev. THOMAS M'NALLY, B.A., LL.B., T.C.D., 4, Wesley-place, Dublin.
JOHN BURKE, Esq., Elmville, Clonmel.
FRANK MICHELL, Esq., C.E., Redruth.
JAMES SHEANE, Esq., Mountmellick.
GEORGE EUSTACE, Esq., C.E., Hayle.
Rev. W. G. MAYNE, Ingrow Parsonage, Keighley.
HENRY MARSDEN, Esq., William-street, Southport.
WILLIAM BEVAN, Esq., 7, Horfield-road, St. Michael's, Bristol.
CHARLES ROBERTSON, Esq., solicitor, 24, St. Martin's-lane, London, E.C.
Capt. JOHN POMEROY, Devon Lopes Mine, Tavistock.
L. BEAVER, Esq., 70, Cross-street, Manchester.
S. DOWNEY, Esq., Purser of East Broodwood Mine, Castle-square, Exeter.
GEORGE WYSE, Esq., M.D., Upper Sackville-street, Dublin.
C. S. HALL, Esq., M.R.C.S., Carlisle.

The object of the testimonial is so fully and lucidly explained in the following correspondence between Campbell M. Thomas, Esq., C.E., F.S.A., and Robt. Symons, Esq., mining engineer, of Truro, in which correspondence the proposed fund originated, that the committee do not think they could do better than refer to it:—

Redruth, March 26, 1866.—MY DEAR SIR: It has been pressed upon me for the last few months, by various friends in Manchester and Cornwall, that all of us interested in metallic mining should do something to testify our recognition of the extraordinary services rendered to mining, and the wonderful success attained, by our friend Mr. Erwin Harvey Wadge, F.G.S. I have been slow myself to make a move in prompting a testimonial to Mr. Wadge, fearing that, from the well-known diffidence and modesty of his character, the project would be rather distasteful to him than otherwise; but as all my mining friends are unanimous in thinking that we should not allow ourselves to be too much influenced by such a purely private consideration in promoting a suitable recognition of what are, after all, public services, I have decided on addressing myself to you, as a mining engineer and surveyor, of unsurpassed position and experience in Cornwall, for your candid opinion on the subject.

Knowing, as we all do, how many testimonials are got up which are not, in any real sense, public testimonials at all, but at best merely the expressions of regard of a private circle, I feel how careful one should be in promoting a testimonial to a person with whom—as is my case with Mr. Wadge—one is connected by ties of friendship and gratitude. I am sensible how much the feelings of admiration I entertain for the private worth of Mr. Wadge may bias my judgment as to the value of his public services; but public services alone should be taken into account in presenting any man with a public testimonial. I, therefore, write to ask you to give me your frank views on Mr. Wadge as a public benefactor to the metallic interest of the kingdom. You are not, I believe, personally known to Mr. Wadge, and, therefore, cannot be influenced by any personal feelings of friendship, but you know as well as I do all he has done in mining, than which no man in the kingdom is more competent (from your vast experience) to estimate at its true value, or more fit (from your high character and position) to give an authoratative opinion on. Believe me, my dear Sir, yours very truly,

Robert Symons, Esq., Truro. CAMPBELL M. THOMAS.

Truro, April 2, 1866.—MY DEAR MR. THOMAS: Pray accept my apoligies for not having replied before to your letter of the 29th, with reference to Mr. Wadge. I have been absent from home over Good Friday and Easter Sunday, and have only just got back this evening. I give you this explanation, for I should regret if you supposed that I had cause for an hour's hesitation or delay in giving my views as to Mr. Wadge's public position in the metallic mining community.

Although you speak far too complimentary of the position I hold in my profession, it is still a fact that no man in the counties of Cornwall and Devon has had such an extended experience as a mining surveyor as I have had. I, therefore, ought to be able to form an opinion worth something as to the value of the services of any man in the cause of metallic mining. For nearly 40 years I have had the constant opportunity of going over professionally every mine in the two counties, and during the same period I have necessarily been brought in contact with every man of the least eminence connected with mining pursuits. Strange to say, as you remark in your letter, I have no personal acquaintance with Mr. Wadge, for of late years I have restricted my business to old standing engagements; but, of course, I know everything Mr. Wadge has done in mining—and this I do say, that since the late Mr. John Taylor came down into Cornwall, upwards of 40 years ago, and started the Consolidated and United Mines, we have not seen any man in Cornwall to compare with Mr. Wadge in energy or ability. He has accomplished results in mining which I would not have believed if I had not know them personally to be facts, and that is an opinion I venture to say no man in Cornwall will attempt to dispute. We have had, within my remembrance, several men who have from time to time thrown a new life into mining, and who have marvellously succeeded in opening up for whole districts a career of wealth and prosperity. I could name such men as the late Mr. Halse, M.P., the late Mr. Joseph Lyle, the late Mr. Pendarves, M.P., the late Mr. Michael Williams, M.P., and many others; but of late it cannot be denied that men of this class have been wanting. It may be said that I speak with the prejudices of the past, which is so often said to unduly disparage the present; but I do not think this is the case, and in proof of it I recognise in Mr. Wadge one worthy to be ranked with those master spirits whom in former days I learned to look up to as beyond the ordinary run of men.

I don't know that I can say more. No man, in my opinion, has ever more worthily earned a public recognition of gratitude than Mr. Wadge. You need, therefore, have no hesitation in pushing forward your testimonial; and I need scarcely say you may calculate, in carrying it out, on my cordial aid in any manner I can be useful.

I remain, yours most respectfully,

Campbell M. Thomas, Esq. ROBERT SYMONS.

In accordance with the views expressed in these letters, the committee invite subscriptions for the purpose of presenting a testimonial, in the form of a piece of plate, value 300 guineas, and a marble bust, to be executed by Neville Burnard, Esq., the eminent Cornish artist, to Erwin Harvey Wadge, Esq., F.G.S., in grateful recognition of the magnificent services rendered by him to the cause of metallic mining throughout the United Kingdom.

The committee had intended to have confined the testimonial to the piece of plate, but having received a communication from Mr. Neville Burnard (extracts from which are annexed), they have decided on following the precedent of the Williams testimonial, therein referred to, and have, consequently, commissioned Mr. Burnard to execute a similar bust of Mr. Wadge. They are fortified in this resolution by the fact that, from the notifications of subscriptions already received, the sum of 300 guineas will probably be far exceeded.

36, *Hugh-street, Eccleston-square, Pimlico, S. W., April* 24, 1866.—You may remember that some years since a testimonial of a somewhat similar character was presented to the late Michael Williams, Esq., M.P., but the Williams testimonial consisted partly of a piece of plate, and partly of a life-size marble bust, which I had the honour to execute for the committee. Should the gentlemen who propose this testimonial decide that it shall consist of a bust and a piece of plate, I should be happy to make a highly-finished bust in the best statuary marble. I have executed a bust of the late Mr. Cobden, which will be exhibited in the Royal Academy during the coming season. Of this bust, Mr. Bright says—"It is as good, I think, as you will rarely see of any man that has passed from among us."

* * * I may be allowed to say that in the case of the Williams testimonial the idea of the bust was suggested by me, and was very warmly taken up by the committee, who were glad that I made the proposal, as the idea had not occurred to them. I may also be allowed to mention that at the Hall of the Royal Cornwall, Polytechnic Society at Falmouth, a gallery of portraits and busts of distinguished Cornishmen is gradually being formed; among the men so honoured, I have had the privilege of placing busts of the Duke of Cornwall; Borlase, the historian; Admiral Boscawen; Trevithick, the engineer; Robert Were Fox; Sir Charles Lemon; Charles W. Peach, the naturalist; J. T. Treffry; Adams, the astronomer, a cousin of Mr. Wadge; Michael Williams, Esq., M.P.; and a bust of Mr. Wadge might be added to the list—I mean a cast. The marble bust would, I presume, be presented to Mr. Wadge's family.

J. J. Cunnah, Esq. NEVILLE BURNARD.

Subscribers' names or subscriptions may be sent to the treasurer or the undersigned.

JOHN J. CUNNAH, Lancashire Insurance-buildings, St. Ann's-square, Manchester, Hon. Sec.

THE DOROTHEA WEST, GREEN, BLUE, AND RED SLATE COMPANY (LIMITED).

Registered under the Companies Act, 1862, whereby the liability of each shareholder is limited to the amount of his shares.

Capital £50,000, in 10,000 shares of £5 each.

Deposit, £1 per share on application, and £1 10s. on allotment.

DIRECTORS.

THOMAS WATERS BRITTAIN, Esq., Dagenham, Essex (Director of the Princess of Wales Slate Company, Limited).
Col. HUGH CALVELEY COTTON, Angiesey, Gosport, Hampshire.
Lieut.-Col. H. GARNET MAN, Halstead Lodge, Sevenoaks, Kent (Chairman of the Prince of Wales Slate Company, Limited).
JAMES MAW, Esq., Stratford, Essex (Director of the Llanfair Green and Blue Slate Company, Limited).
WM. WALTER, Esq., Berengrave, Rainham, Kent.

BANKERS—The National Bank, Old Broad-street, E.C.
AUDITOR—F. Bertram Smart, Esq.
GENERAL MANAGER—Mr. Thomas Harvey.

OFFICES,—33, KING STREET, CHEAPSIDE, E.C.

This company is being formed for the purpose of purchasing and extending the workings of an established and valuable quarry in Carnarvonshire, known as the Dorothea West, lying on the hill side of Nantlle Vale, and embracing and intersecting nearly all the valuable veins of slate in that district, including the celebrated Dorothea veins.

The company have agreed to purchase the quarries, which are in full work, and realising a large monthly profit, together with the plant and machinery, for the sum of £20,000, one-half of which is to be paid in cash, and the remainder in paid-up shares. This amount is far less than the capital expended in developing the quarries, and bringing them into their present profitable condition; but the original proprietors have stipulated for retaining a large interest in the company.

There are seven veins of slate in the property, of fine colour, split, and quality, the slates from which can be seen on the quay at Carnarvon, from whence they are shipped or sent off by rail to all parts. The new Charing Cross Railway Hotel, the London Bridge Hotel, and the Star and Garter Hotel, Richmond, are covered with green slates from this quarry.

The green slate from the Dorothea West has been long known as the finest in colour and quality, as well as the largest vein of green slate in Carnarvonshire. Green Duchesses are now worth £19 per thousand, or £6 6s. 8d. per ton, and other sizes bear a proportionate price, being all about double the price of the best blue, and exceeding the average price per ton of all the copper ores of Cornwall.

Full prospectuses, with reports and forms of application for shares, can be had at the company's offices. The company commenced working the quarry on the 1st January, 1866, and the profit on the total working expenses has already exceeded 40 per cent. The accounts can be seen at the offices.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Devon.

IN the MATTER of the COMPANIES ACT, 1862, and of the WEST FURSDON MINING COMPANY.—TO BE SOLD, under the direction of the Registrar of this Court, BY PUBLIC AUCTION, at WEST FURSDON MINE, in the parish of South Tawton, on Thursday, the 7th day of June next, at Eleven o'clock in the forenoon, together or in lots, all the INTEREST of the above-mentioned company of and in the said West Fursdon Mine, under and by virtue of a certain indenture of lease, bearing date on or about the 18th day of May, 1858, under which the operations of the said company have been carried on. And also the undermentioned MINING MACHINERY, MATERIALS, and other EFFECTS, viz.—Water-wheel, 35 ft. by 4 ft., iron axle, rings, sockets and bearings, complete; 21 fms. of 7 in. lift of pumps, complete; 27 fms. of 8 in. ditto; about 50 fms. of bucket rods and prongs; about 50 fms. of 1½ in. drawing rod, pullies and stands; 30 fms. of wood main rods, with strapping plates and pins. Account-house furniture, and a quantity of other materials and effects in general use in mines, particulars of which are given in handbills.

JOHN GILBERT CHILCOTT, Truro
(Agent for Edward Chilcott, Tavistock, Solicitor for the Petitioner).

Dated Registrar's Office, Truro, May 23, 1866.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the WEST HUEL GRYLLS MINING COMPANY.—The Registrar of this Court has appointed Friday, the 8th day of June next, at Eleven o'clock in the forenoon, at the Registrar's Office, at Truro, to SETTLE the LIST of CONTRIBUTORIES of the ABOVE-NAMED COMPANY, now made out and deposited at the said office.

WM. MICHELL, Registrar of the said Court.

Dated this 23d day of May, 1866.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the EAST TRESKERBY MINING COMPANY.—TO BE SOLD, under the direction of the Registrar of the said Court, BY PUBLIC AUCTION, on Tuesday, the 5th day of June next, at Twelve o'clock at noon, at EAST TRESKERBY MINE, in the parish of St. Agnes, within the said Stannaries, either together or in lots, the MINE SETTS or GRANTS of the said company, and the undermentioned MINING MACHINERY and MATERIALS, viz.:—

ONE 30 in. cylinder PUMPING ENGINE, and BOILER 9 tons, with first piece of rod and fittings complete.

1 60 ft. shears, with pulleys; 2 balance-bobs, capstan chain; 2 wood rods, 10 by 6; horse whim, 3 shaft tackles and shieves, 35 fms. of 7 in. wood rods, plunger pole and stocking, bob king post, yokes, staples and glands, smiths' bellows, grinstone, shovels, gibs and cutters, part of a winch, and several other articles in general use in mines.

The mine, machinery, and materials may be inspected at any time prior to the sale, on application to Mr. WM. TONKIN, the officer of the Court in charge thereof, or to

HODGE, HOCKIN, AND MARRACK, Solicitors, Truro.

Dated Registrar's Office, Truro, May 24th, 1866.

In Chancery.

FREEHOLD ESTATE, GLAMORGANSHIRE, comprising upwards of 82 acres, with VALUABLE VEINS of COAL thereunder.

TO BE SOLD, BY TENDER, in One Lot, pursuant to a Decree of the High Court of Chancery made in a Cause Thomas *v.* Dixie, with the approbation of the Vice-Chancellor Sir Richard Torin Kindersley, before John Arthur Buckley, Esq., the chief clerk of the said Judge, at the chambers of the said Judge, No. 3, Stone-buildings, Lincoln's Inn, in the county of Middlesex, on Thursday, the 28th day of June, 1866, at Twelve o'clock at noon,

A FREEHOLD ESTATE, called or known by the name of PENYBONT NEWYDD, containing 82 acres or thereabouts of good ARABLE and PASTURE LAND, situate in the parish of LLANDILOTALYBONT, in the county of GLAMORGAN, including upwards of 14 acres of thriving young oak and other timber, now in the occupation of John Thomas, or his under tenants, at the yearly surface rent of £60.

There are rights of common over an extensive common called Craig Fawr, adjoining the estate on the south. Upon the estate there are a substantial DWELLING-HOUSE and suitable FARM BUILDINGS, and underneath are VALUABLE VEINS of COAL. And there is also an excellent STONE QUARRY of BLOCK and FLAG STONE opened, and within about 150 yards of the Llanelly and Llandilo Railway, to which there is easy access.

The property is very favourably situate, the railway passing through it, and only one mile and a half from Pantyffynon Railway station, within twelve miles of the thriving port of Llanelly, thirteen miles from Swansea, and within easy distance of very extensive lime works. The Loughor River, in which there is excellent fishing, skirts a considerable portion of the land.

Particulars, with copies of the conditions of sale and form of tender, may be had of Mr. STAFFORD BAXTER SOMERVILLE, of 48, Lincoln's Inn-fields, Middlesex; and of Mr. LEWIS MORRIS and Mr. GEORGE THOMAS, of Carmarthen, solicitors; and of Mr. JOHN HOWELL THOMAS, Auctioneer, Carmarthen.

In the Landed Estates Court, Ireland, Queen's County.

In the Estate of HENRY HOVENDEN, deceased, Owner and petitioner, Continued in the name of Caroline Hovenden.

TO BE SOLD, in One Lot, before the Hon. Judge Dobbs, at his Court, Landed Estates Court, Inns Quay, in the City of Dublin, on Thursday, the 7th day of June, 1866, at the hour of Twelve o'clock at noon, the MINES of COAL and CULM, held in fee simple, situate in and under 82A. 3R. 35P. Irish acres, of the lands of Ballyiehane, called Modubeagh or Bambrick's Mountain, in the barony of Ballyadams, and Queen's County.—Dated this 24 day of May, 1866. GEORGE T. HOPKINS, Chief Clerk.

The Modubeagh Colliery is situated in the Townland of Ballyiehane Upper, in the Barony of Ballyadams and Queen's County. The portion to be sold contains 82A. 3R. 35P. Irish plantation measure, and this part has been already wrought to the extent of 12A. 2R. 32P., leaving 72A. 1R. 3P. unworked. The estate originally contained 183 Irish acres, and the colliery was profitably worked for a long period. The colliery has been recently partitioned by the Landed Estates Court.

The colliery lies adjacent to the well-known Wolf Hill Colliery, which is in full operation, and yields a good supply of free-burning anthracite.

The Modubeagh Colliery is of easy access, there being excellent county roads passing directly through it leading to Naas, Carlow, Castlecomer, Abbeyleix, Ballinakill, Maryborough, &c., and it is but nine miles from the Athy Station on the Great Southern and Western Railway.

A report on the mine, recently made by order of the Court, by Joseph O'Kelly, Esq., M.A., C.E., geologist (Geological Survey of Ireland), is lodged in Court, and can be inspected by intending purchasers.

Patrick Brennan, of Wolf Hill, will point out the site and boundaries of the colliery.

For rentals and further particulars apply at the Landed Estates Court, Inns Quay, in the City of Dublin; or to EDWARD GREEN FOLEY and ROBERT PONCLUE, solicitors, having carriage of the order for sale, No. 52, Lower Sackville-street, Dublin.

CRONEBANE MINES—SALE OF MACHINERY AND MATERIALS.

MR. D. JOHNSON has been instructed to SELL, BY PUBLIC AUCTION, on Wednesday, the 6th day of June, 1866, by Eleven o'clock in the forenoon, at the CRONEBANE MINES, near the Vale of Ovoca, in the county of Wicklow (subject to such conditions as will be read at the auction), the whole of the MACHINERY and MATERIALS thereon, consisting of—

ONE 30 in. cylinder ROTARY CONDENSING STEAM PUMPING ENGINE and 10 ton BOILER, with fly wheel, wrought-iron shaft and whim cage, and vertical and balance-bobs for working flat-rods.

ONE 24 in. cylinder ROTARY STEAM WHIM ENGINE, one 10 ton and one 8 ton BOILER, fly wheel, whim cage, &c.

307 fms. 1½ in. square iron flat-rods	2 plunger lifts, 4 in. and 8 in. complete
22 fms. 1½ in. round iron ditto	1 9 in. H-piece
29 fms. 7⅛ in. wood flat-rods, with strapping plates, &c.	1 9 in. door-piece, 3 ft. 3 in. long
1000 fms. of whim chain, 3-4ths, 11-16ths, 5-8ths, 9-16ths, and ½ in.	1 7 in. 9 ft. sinking windbore
3 oak horse whim axles	1 9 in. 6 ft. flat bottom windbore
4 shaft tackles, with pulleys, &c.	1 8 in. 9 ft. brass-lined working barrel
18 10 in. 9 ft. pumps	1 7 in. 9 ft. ditto
2 10 in. 6 ft. ditto	1 7 in. windbore
1 10 in. 3 ft. ditto	1 cistern
9 7 in. 6 ft. ditto	2 stuffing boxes and glands, brass bushed
1 7 in. 6 ft. ditto	90 fms. of 7 in. main rods and strapping plates
330 fms. 4 in. pumps	150 fms. ladders

10 tram wagons; 3 whim skips; 7 steam whim kibbies; 6 horse whim ditto; 2 winze ditto; 18 skip wheels; 66 pulleys for flat-rods; 24 large ditto; 26 chain ditto; 9 sets of pulley stands; sundry rod plates; staples and glands; flange bolts and pump rings; launders; carpenters' bench; smiths' bellows; anvil, vice, and other tools; sundry lots of new and old iron; miners' tools; lot of steel; several lots of timber and a large quantity of plank; two weighing machines, for weighing up to 4 tons; together with sundry other mine materials.

The above machinery and materials are well situated for removal, being only about two miles from the Ovoca Station of the Dublin, Wicklow, and Wexford Railway, which is in communication with the port of Wicklow and the wharves at Kingstown.

For viewing the same apply to Capt. GEORGE OATES, on Tigroney Mines, adjoining; and for further information to the Auctioneer, Ballinacarigg, Rathdrum; or to Messrs. WILLIAMS and Co., Tregullow, Scorrier, Cornwall.

A punctual attendance is solicited. Refreshments on the mines.

Dated Tregullow Offices, May 16, 1866.

By order of the Executors of a deceased shareholder.

FIRST-CLASS INVESTMENT.—FIFTY-SEVEN SHARES in the SUN FIRE OFFICE, and FIFTY SHARES in the SUN LIFE ASSURANCE SOCIETY, the principal office of which is in Threadneedle-street.

MESSRS. GREEN AND SON (of St. Michael's House, St. Michael's-alley, Cornhill) are favoured with instructions to SELL, BY AUCTION, at the Guildhall Coffee-house, Gresham-street, on Friday, June 8, at Twelve for One, in thirty-two lots, FIFTY-SEVEN SHARES in that well-known, old-established, and highly-flourishing concern, the SUN FIRE OFFICE. The dividend is £6 10s. per share, payable in January and July, independently of large bonuses. The bonuses and dividends have averaged for the last eleven years £10 9s. 1d. per annum per share, without any deduction for income tax. The bonuses have generally been declared biennially, or oftener. The last bonus of £6 10s. per share was paid at Midsummer, 1864, and the preceding bonus of £10 per share was paid at Midsummer, 1863. Also FIFTY SHARES in the SUN LIFE ASSURANCE SOCIETY, of which £10 per share only has been paid up. The annual dividend is 40s. per share, independently of large bonuses. The dividend and bonuses, on an average for the last ten years, have been nearly £4 per annum per share, without any deduction for income tax. The last bonus of £10 per share was paid in January, 1863, and the next bonus will be paid in January, 1868.

Printed particulars, with conditions of sale, may be had at the Guildhall Coffee-house, Gresham-street; of Messrs. RANKEN, FORD, LONGBOURNE, and LONGBOURNE, solicitors, 4, South-square, Gray's-inn; and of Messrs. GREEN and SON, auctioneers and surveyors, St. Michael's House, St. Michaels'-alley, Cornhill.

WHEAL LUDCOTT AND WREY CONSOLS.
VALUABLE MACHINERY AND MINE MATERIALS FOR SALE.

MR. BAKER WILL SELL, BY AUCTION, at the above mine, in the parish of St. Ive, on Tuesday, the 29th day of May inst., and two following days, all the MACHINERY and MATERIALS on the mine, viz.:—

ONE PUMPING ENGINE, 60 in. cylinder, 9 ft. stroke, with TWO 10 ton BOILERS.
ONE PUMPING ENGINE, 50 in. cylinder, 10 ft. stroke, equal beam, and TWO 10 ton BOILERS; two large balance bobs.
ONE 24 in. DRAWING ENGINE, 6 ft. stroke, with crusher attached, and 8 ton BOILER, complete.
ONE 22 in. DRAWING ENGINE, 5 ft. stroke, with crusher attached, and 8 ton BOILER, complete.

2 capstans and shears.
2 13 in. capstan ropes, 200 fms. each.
300 fms. 6 in. flat rope.
100 fms. 10 in. rods.
90 fms. 12 in. rods.
70 fms. 13 in. rods.
2 water wheels, 30 ft. high, with 12 head stamps attached.
28 9 ft. 13 in. pumps.
57 9 ft. 12 in. ditto.
31 9 ft. 11 in. ditto.
6 12 in. H pieces.
6 12 in. door pieces.
3 12 in. plunger poles, stuffing boxes and glands to match.
2 10 in. ditto ditto. [plates.
A great quantity of 6 inch strapping
500 fms. ⅝ in. and other chain.
1000 fms. rail iron.
Saddles.
300 fms. ladders.
4 double power crab winches.
2 single ditto.
30 tram wagons.
Upwards of 2000 ft. plank and flooring.
A quantity of sheds.

With every other article requisite to carry on an extensive mine.

Particulars can be seen in catalogues, with order of sale, after the 19th day of May instant, to be obtained of the auctioneer, or at the principal inns of Tavistock, Launceston, Liskeard, and Truro.

Refreshments will be provided at Eleven o'clock; the sale will commence at Twelve each day.—Wadeland, Liskeard, May 10, 1866.

SALE OF MINE MATERIALS AT WHEAL ALBERT, PERRANZABULOE, NEAR TRURO

MR. JOHN THOMAS has received instructions to SELL, BY PUBLIC AUCTION, on the 28th of May, at Twelve o'clock at noon, at the above mine, the whole of the MATERIALS, which are almost new, and of first-rate quality, including a new 45 in. cylinder PUMPING ENGINE, 9 ft. stroke, equal beam; a 13 ton BOILER and fittings; 140 fathoms of iron flat-rods; 100 fathoms of new 12 in. capstan rope; 80 fathoms of pumps, from 15 in. to 8 in.; shears, balance bob, whims, chains, kibbies, timber houses, scales, and all the other materials of a fully-appointed mine.—Further particulars may be obtained on application to Capt. MIDDLETON, on the mine; to Mr. F. W. DARE, Redruth; or the Auctioneer, Mr. JOHN THOMAS, The Glebe, Church Town, Redruth, Valuer and General Agent.

May 9, 1866. Luncheon on the table at Twelve o'clock precisely.

COUNTY OF GLAMORGAN.
VALUABLE COLLIERY PROPERTY AND HARBOUR.
PRELIMINARY ANNOUNCEMENT.

MR. THOMAS THOMAS has been instructed to offer FOR SALE, BY PUBLIC AUCTION, in the ensuing months of May or June, at the Mackworth Arms Hotel, Swansea, unless previously disposed of by private contract (of which due notice will be given), subject to conditions of sale to be then produced, all that valuable COLLIERY and COAL FIELD, situate in the parish of LLANRHIDIAN, in the county of GLAMORGAN, known as the LYNCH COLLIERY, containing the well-known Lynch vein, the Farm vein, and two others.

Also the LYNCH HARBOUR, contiguous to the said colliery, at the confluence of the River Morlais with the River Loughor, together with the land, conveniences, and works connected therewith.

And also that one undivided FOURTH SHARE of a valuable COLLIERY, situate in the parishes of LOUGHOR and LLANRHIDIAN, in the county of GLAMORGAN known as the BERRINGTON COLLIERY, containing the well-known Hughes's vein, and three others.

Detailed particulars and plans are now in preparation. In the meantime, for further information, and to treat, application may be made to Mr. GASKOIN, solicitor, Swansea; Mr. H. HUXHAM, mining engineer, Swansea; or to the Auctioneer, at his offices at Swansea and Neath.—Swansea, April, 1866.

FALMOUTH SMELTING WORKS, admirably adapted for any other smelting or large manufacturing purposes, and in close proximity to the Falmouth Railway and Docks, FOR DISPOSAL, BY PRIVATE CONTRACT.—Apply on the works; or for particulars, to JOHN DARLINGTON, Esq., Moorgate-street Chambers, Moorgate-street, London, E.C.

CARNYORTH MINE, ST. JUST.

TO BE SOLD, BY TENDER, the above MINE, with the SETTS and MATERIALS, consisting of a 30 in. cylinder PUMPING ENGINE and BOILER, together with about 160 fms. pitwork. Also, a 24 in. cylinder STAMPING and WINDING ENGINE, with 32 heads stamps. The whole are in excellent working order, and well worthy the attention of capitalists.

Further particulars may be obtained on application to Capt. WALLIS, on the mine; or the purser, Mr. S. YORK, Penzance, to whom any tenders for the purchase of the mine should be sent on or before Tuesday, the 12th day of June next.

Dated May 23, 1866.

TO BE SOLD, a STEAM-COAL COLLIERY in the VALE of NEATH, connected by a siding with the Vale of Neath Railway. The coal (a seam of 9 feet thick) has just been won by the proprietor of the estate, who declines going into the trade himself, but wishes to recover his outlay (£11,000), and let his coal at a royalty of 8d. per ton, under an area of 600 acres.

Apply to DAVID LLEWELLIN, Esq., C.E., Glanwen, Pontypool.

Promoters of limited companies need not apply.

TO COLLIERY PROPRIETORS, AND OTHERS.

TO BE DISPOSED OF, the LEASE, PLANT, ENGINE, BOILERS, MACHINE, and all other effects used in a colliery. Any person or persons desirous of entering into the above business will find this an excellent opportunity for investment. It contains 94 acres, or thereabouts, and has three good workable coal seams of first-rate quality; one is 6 ft. thick, another 9 ft. thick, and another 6 ft. thick, and is now in good working order, and the lease has 19 years to run.

For further particulars, apply to "L. Z.," MINING JOURNAL office, 26, Fleet-street, London. None but principals need apply. Satisfactory reasons given for disposing of the same.

IMPORTANT MINERAL ESTATE.
GLAMORGANSHIRE, SOUTH WALES.—THE DULAIS AND CRYNANT MINERAL ESTATE, in the parish of Cadoxtone juxta-Neath.

TO BE LET, UPON LEASE, for a long term of years, all the COAL, ARGILLACEOUS IRONSTONE, BLACKBAND, SAND, CLAY, and BUILDING STONE lying and being in and under the above estate, comprising about 4000 acres. Another portion of the mineral property has been under lease for some time, and forms a very large and extensive colliery; and another part of the mineral property is also under lease, and has been worked by an iron company, who have large ironworks (now being considerably increased) close to it. The coal and mine can be worked cheaply, a great portion of which is level free, and little timber will be required, the roof and floor being very strong. The Neath and Brecon Railway having been carried through this estate for a distance of nearly six miles, and being now open for mineral and goods traffic, every facility is afforded for shipment at the ports of Swansea, Britonferry, Neath, Llanelly, and Port Talbot, all of which may be reached within a very short distance, and the minerals may be conveyed to any part along the Great Western Railway. In the course of a few months the Neath and Brecon Railway will be opened for traffic to Llangamvach and Brecon, at which places it will join the Central Wales Railway and other lines, thereby giving great facilities for the conveying of the minerals to the North.

For further particulars apply to Messrs. UPTON, JOHNSON, and UPTON, solicitors, 20, Austinfriars, London; Mr. JAMES KEMPTHORNE, solicitor, Neath, Glamorganshire, South Wales; and to Mr. J. O. JONES, mining engineer, Gnoll Brook Villa, Neath.

TO MINE, SLATE QUARRY, AND RAILWAY COMPANIES.—CAPT. C. WILLIAMS is NOW OPEN to UNDERTAKE ALL KINDS of CONTRACTS, such as DRIVING LEVELS, SINKING SHAFTS, CONSTRUCTING WATER COURSES, CANALS, TRAMWAYS, &c., and ERECTING ALL SORTS of MACHINERY for MINING and OTHER PURPOSES, having on hand at all times a first-class staff of miners and machinists, who will proceed to any part of the world upon the shortest notice.

N.B.—In all cases 30 per cent. will be left in hand until the work is complete.

Tyn-y-Wern, Tallesin, via Shrewsbury.

WHEAL THOMAS—PROSPECTUS.—This Mine is situate in the parish of PERRANZABULOE, in the county of CORNWALL, in light blue killas strata, favourable for driving, and highly mineralised.

This mine is also situated in a splendid locality for mining and mineral, being bounded on the north by the Great Retallack, and on the south by Wheal Hope, both of which have been abundantly productive, the former for blende and the latter for silver-lead, and there is every probability of similar and far greater results in this mine than the two former, as may be seen by a sketch or plan of the lodes. This piece of ground is also situated in a splendid mining district, being about two miles north-west of the far-famed East Wheal Rose, one from North Shepherds, one and a half from the Old Shepherds Mines, where their returns were from 200 to 300 tons of silver-lead per month; about two miles from Penhale and Lomax Mines, and about two miles north of West Chiverton Mine, which at present is yielding to the adventurers large dividends.

This sett some years since was taken up by a company of poor men, who induced the late Capt. John Middleton, of East Wheal Rose, to take an interest. He, knowing the locality and run of the lodes, commenced at once to drive an adit level to intersect the lodes in the eastern part of the sett, which he, as well as other practical miners, formed a very favourable opinion of; but some of the party being very poor, and Capt. Middleton having had a deal of trouble to get their money, at once determined (after driving about 120 fms.) to abandon the mine, rather than take any further trouble with them leaving about 80 or 90 fms. further to drive to intersect the lodes.

There are two east and west and two north and south lodes, and, when intersected, there is every probability of their being abundantly productive, which is a general opinion of experienced miners.

The junction of these lodes at the adit level will give a back of about 12 fms.

There is also a large elvan traversing the entire length of the sett, and crossing the north and south lodes about 90 fms. north of the first east and west one, which lode will intersect the two former lodes in a splendid valley, where large deposits of silver-lead may be expected.

At the 17 fm. level (in the old mine), west of Bell's shaft, an end is being driven west about 40 fms., and cut a north and south lode, which lode has been driven on south for about 50 fms., leaving about 30 fms. further to drive to cut Budnick lode, and this lode stands whole throughout the entire length of the sett, being about 390 fms.

Looking at the locality and situation of this mine, and killas in which these lodes exist, a more favourable piece of ground cannot be offered to the public for investment, and to which the attention of mining investors and speculators is most particularly solicited, as the sett can be had on most reasonable terms.

Apply to HEZEKIAH PRATER, Hendra Cottage, Perranporth, Truro, Cornwall.

Now ready, price 5s., by post 5s. 4d.,

THE MINES OF CORNWALL AND DEVON: STATISTICS AND OBSERVATIONS, for 1865.

By THOMAS SPARGO, Mining Engineer, Stock and Sharebroker, Gresham House, Old Broad-street, London, E.C.

FOUNDRY, HAYLE, SEPT. 29, 1865.—SIR: We beg to inform you that, in consequence of our INCREASING BUSINESS in LONDON, we have purchased the HAYLE FOUNDRY WHARF (formerly Crown Wharf), NINE ELMS, where we shall carry on in all their branches the businesses of FOUNDERS and ENGINEERS.

Having by this arrangement provided greater facilities for the dispatch of work confided to us by our friends in London, and being also enabled to extend our business, we are, in addition to the usual Engineering work hitherto undertaken by us, prepared to SUPPLY MINING MACHINERY from this wharf at the shortest notice, where also our resident engineer will be in attendance to give information in designing general plans and details of the most improved machinery for mining and other purposes.

Our offices hitherto at Clarence Chambers, 12, Haymarket, will from this date be transferred to the Hayle Foundry Wharf, Nine Elms, S., where all communications intended for our London branch should be addressed.

We are, Sir, your obedient servants,
HARVEY AND CO.

NOTICE.—Notice is hereby given, that the COAL BUSINESS CARRIED ON for many years by Mr. JOS. DUNSTAN will, on and after the 1st March next, be CONTINUED under the FIRM of J. DUNSTAN AND CO. To the above will be ADDED the BUSINESS of GENERAL MERCHANTS, AUCTIONEERS, MINE BROKERS and SHAREDEALERS, MINE PURSERS, COMMISSION AGENTS, ACCOUNTANTS, &c.

J. DUNSTAN and Co. hope, by strict application to all matters of business entrusted to their care, to merit a liberal share of public patronage.—Truro, January 24, 1866.

TO ENGINEERS, MINING COMPANIES, AND OTHERS.

JOHN TURNER (of Sheffield), 3, FINKLE STREET
STOCKTON-ON-TEES,
MANUFACTURER and REFINER of SUPERIOR CAST-STEEL for MINING DRILLS, PUNCHES, TURNING TOOLS, and TAPS, at reasonable prices.
Soliciting a sample order.
A Stock of Steel and Mining Tools kept at the above address.

HORIZONTAL ENGINES FOR SALE, at very low prices:—One 12 in. cylinder, 24 in. stroke; one 12 in. cylinder, 36 in. stroke; and two 14 in. cylinders, 24 in. stroke. All ready for delivery, and may be had with or without fly-wheels.—Apply to Messrs. E. PAGE and Co., Laurence Pountney-place Laurence Pountney-hill Cannon-street E.C.

PATENT FLEXIBLE TUBING,
AND BRATTICE CLOTH FOR MINES,
MANUFACTURED BY
ELLIS LEVER,
PATENTEE,
WEST GORTON WORKS, MANCHESTER.

TAVISTOCK IRONWORKS AND STEEL ORDNANCE COMPANY (LIMITED).
(LATE GILL AND CO.)
ENGINEERS, IRON AND BRASS FOUNDERS,
MANUFACTURERS OF
STEAM ENGINES, BOILERS, AND MACHINERY OF ALL KINDS.
CHAINS, SHOVELS, EDGE TOOLS, AND EVERY DESCRIPTION OF CAST AND HAMMERED IRON FOR MINING, MANUFACTURING, RAILWAY, OR AGRICULTURAL PURPOSES.
Machinery sent to all parts of the world.
Foreign mining companies supplied on liberal terms.

RAILWAY CARRIAGE COMPANY (LIMITED
ESTABLISHED 1847.
OLDBURY WORKS, NEAR BIRMINGHAM.
MANUFACTURERS of RAILWAY CARRIAGES and WAGONS, and EVERY DESCRIPTION of IRONWORK.
Passenger carriages and wagons built, either for cash or for payment over a period of years.
RAILWAY WAGONS FOR HIRE.
CHIEF OFFICES,—OLDBURY WORKS, NEAR BIRMINGHAM.
LONDON OFFICES,—6, STOREY'S GATE, GREAT GEORGE STREET, WESTMINSTER.

THE METROPOLITAN RAILWAY CARRIAGE AND WAGON COMPANY (LIMITED),
SALTLEY WORKS, BIRMINGHAM.
Successors to Messrs. JOSEPH WRIGHT and SONS.
MANUFACTURERS of RAILWAY CARRIAGES, WAGONS, and RAILWAY IRONWORK of every description.
RAILWAY CARRIAGES and WAGONS built for CASH, or upon DEFERRED PAYMENTS EXTENDING over a period of from THREE to TEN YEARS.
A large number of COAL, IRONSTONE, BALLAST, and other WAGONS to be LET ON HIRE.
MANUFACTORY AND CHIEF OFFICES—SALTLEY WORKS, BIRMINGHAM.
LONDON OFFICES—No. 8, ADAM STREET, ADELPHI, W.C.

THE BEVERLEY IRON AND WAGON COMPANY (LIMITED).
MANUFACTURERS of RAILWAY CARRIAGES and WAGONS, WROUGHT and CAST IRON CARRIAGE and WAGON WHEELS, AXLES, HAMMERED USES, and HEAVY SMITHS' WORK for ENGINEERS, &c. BRASS and IRON FOUNDERS. MAKERS of PORTABLE FARM RAILWAYS, TURNTABLES, CROSSINGS, SWITCHES, &c. AGRICULTURAL MACHINISTS. MANUFACTURERS of FIELD, ROAD, and BARN IMPLEMENTS, PATENT LORRY, CART, and CARRIAGE WHEELS, with WOOD or IRON NAVES. REAPING MACHINES, CLOD CRUSHERS, CORN MILLS, &c. SAW MILL PROPRIETORS. GENERAL TIMBER CONVERTERS for HOME and FOREIGN RAILWAYS, STATIONS, BARRACKS, EXHIBITIONS, &c.
IRONWORKS, BEVERLEY, YORKSHIRE.
JAMES DEWHIRST, Sec.

THE BIRMINGHAM WAGON COMPANY (LIMITED)
MANUFACTURE RAILWAY WAGONS of EVERY DESCRIPTION, for HIRE and SALE, by immediate or deferred payments. They have also wagons for hire capable of carrying 6, 8, and 10 tons, part of which are constructed specially for shipping purposes. Wagons in working order maintained by contract.
EDMUND FOWLER, Sec.
WAGON WORKS,—SMETHWICK, BIRMINGHAM.
*** Loans received on Debenture; particulars on application.
London Agent—Mr. E. B. SAVILE, 67, Victoria-street, Westminster, S.W.

IMPROVED ORE-DRESSING MACHINERY.—FULL PARTICULARS relative to the IMPORTANT IMPROVEMENTS recently made by Mr. HUNT in his PATENT ORE SEPARATOR and GOLD WASHING MACHINES can be obtained on application to Mr. WILLIAM WARD, 95, Bishopsgate-street Within, or to Mr. JOHN HUNT, Porthleven, Helston, Cornwall.

A WORKING MODEL of the MACHINE will be shown and explained at Mr. WARD'S office, as above, on Tuesday, the 22d inst., from Twelve to One o'clock, or it can be seen working at the Patentee's Silver-lead Works, Porthleven.

Mine proprietors, or others, having refuse ore of any kind, or slag containing metal, at their disposal, will please send full particulars to Mr. HUNT, who is prepared to treat for the same on liberal terms.

GALLOWAY'S PATENT CONE TUBES FOR STEAM BOILERS.—The introduction of these vertical taper tubes into the ordinary fined boilers PROMOTES the NECESSARY CIRCULATION of WATER, and thus INCREASES THEIR STRENGTH and DURABILITY.

Their adoption not only adds to the steam-producing power of the flues, but renders the practice of hooping with angle or tee iron rings quite unnecessary.

The tubes have now been in use upwards of 14 years, and above 22,000 are in work in various parts of the country, with the best results.

They can be easily fixed in existing boilers (owing to their taper form) by any boiler maker, but can only be obtained from the patentees, W. and J. GALLOWAY and SONS, Engineers and Boiler Makers, Manchester.

GUN COTTON FOR BLASTING.—The extended use of this material has enabled the manufacturers to issue a new List, showing a LARGE REDUCTION IN PRICE; and they now beg to call the attention of those interested in MINING and BLASTING OPERATIONS to the GREAT SAVING in TIME and COST which may be effected by the introduction of gun-cotton.

Directions for use and full particulars obtained upon application to
THOMAS PRENTICE AND CO.,
173, FENCHURCH STREET, LONDON; or
GUN COTTON WORKS, STOWMARKET.

COAL CUTTING MACHINERY.—The WEST ARDSLEY COMPANY having, by recently patented improvements, perfected their coal cutting machinery, worked by compressed air, are NOW READY to MAKE CONTRACTS for the CONSTRUCTION and USE of their MACHINES.

The results of twelve months' experience in the working of these machines, by the West Ardsley Company, have proved most satisfactory, their use being found to CHEAPEN the COST and IMPROVE the average SIZE of the COAL, to LIGHTEN the LABOUR, and also to MODIFY the SANITARY CONDITION of the MINE.

All communications to be made to Messrs. FIRTH, DONISTHORPE, and BOWER, No. 8, Britannia-street, Leeds.

NOTICE.—The WEST ARDSLEY COMPANY, having reason to believe that their patents are being infringed upon, hereby give notice that they will TAKE LEGAL PROCEEDINGS AGAINST ALL PARTIES who may MAKE FOR SALE, or USE ANY MACHINERY in the construction of which any such INFRINGEMENT is MADE.

Patent Flat and Round Wire and Hemp Ropes, &c.

JOHN AND EDWIN WRIGHT, PATENTEES,
CITY OFFICE, 19, LONDON STREET, E.C.
ESTABLISHED 1770.
Manufacturers of every description of
IMPROVED PATENT FLAT AND ROUND WIRE ROPES,
From the very best quality of charcoal iron and steel wire.
PATENT FLAT AND ROUND HEMP ROPES,
SHIPS' RIGGING, SIGNAL AND FENCING STRAND, LIGHTNING CONDUCTORS, STEAM-PLOUGH ROPES (made from Webster and Horsfall's patent steel), WIRE, HEMP, FLAX, ENGINE YARN, COTTON WASTE, &c
UNIVERSE WORKS, MILLWALL, POPLAR, LONDON.
UNIVERSE WORKS, GARRISON STREET, BIRMINGHAM.
No 2, OSWALD STREET, GLASGOW.
CITY OFFICE, No. 19, LONDON STREET, LONDON.

CHARLES DAVEY AND CO
SAFETY FUSE MANUFACTURERS,
ST. HELEN'S JUNCTION, LANCASHIRE,

International Exhibition, 1862—Prize Medal.

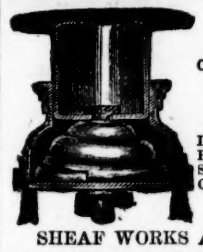
JAMES RUSSELL AND SONS (the original patentees and first makers of wrought-iron tubes), of the CROWN PATENT TUBE WORKS, WEDNESBURY, STAFFORDSHIRE, have been AWARDED PRIZE MEDAL for the "good work" displayed in their wrought-iron tubes and fittings.
Warehouse, 81, Upper Ground-street, London, S.

BICKFORD'S PATENT SAFETY-FUSE OBTAINED the PRIZE MEDALS at the ROYAL EXHIBITION of 1851, at the INTERNATIONAL EXHIBITION of 1862, in London, and at the IMPERIAL EXPOSITION held in Paris, in 1855.

BICKFORD, SMITH, AND CO., TUCKINGMILL, CORNWALL, MANUFACTURERS of PATENT SAFETY-FUSE, having been informed that the name of their firm has been attached to fuse not of their manufacture, beg to call the attention of the trade and public the following announcement:—

EVERY COIL of FUSE MANUFACTURED by them has TWO SEPARATE THREADS PASSING THROUGH the COLUMN of GUNPOWDER, and BICKFORD, SMITH, AND CO. CLAIM SUCH TWO SEPARATE THREADS as THEIR TRADE MARK.

THOMAS TURTON AND SONS,
MANUFACTURERS OF
CAST STEEL for PUNCHES, TAPS, and DIES, TURNING TOOLS, CHISELS, &c.
CAST STEEL PISTON RODS, CRANK PINS, CONNECTING RODS, STRAIGHT and CRANK AXLES, SHAFTS and
FORGINGS of EVERY DESCRIPTION.



DOUBLE SHEAR STEEL, BLISTER STEEL, SPRING STEEL, GERMAN STEEL.
FILES MARKED T. TURTON
EDGE TOOLS MARKED WM. GREAVES & SON
Locomotive Engine, Railway Carriage and Wagon Springs and Buffers.
SHEAF WORKS AND SPRING WORKS, SHEFFIELD.
LONDON WAREHOUSE, 35, QUEEN STREET, CANNON STREET, CITY, E.C., Where the largest stock of steel, files, tools, &c., may be selected from.

BASTIER'S PATENT CHAIN PUMP, APPARATUS FOR RAISING WATER ECONOMICALLY, ESPECIALLY APPLICABLE TO ALL KINDS OF MINES, DRAINAGE, WELLS, MARINE, FIRE, &c.

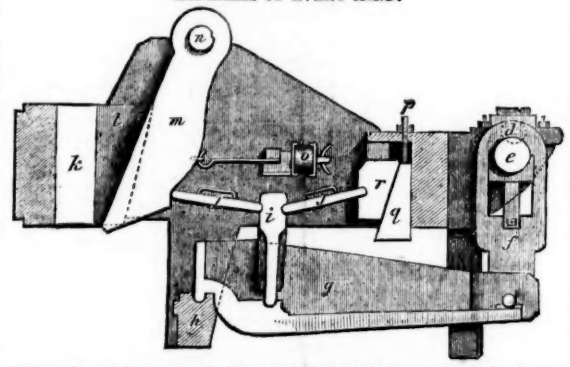
J. U. BASTIER begs to call the attention of proprietors of mines, engineers, architects, farmers, and the public in general, to his new pump, the cheapest and most efficient ever introduced to public notice. The principle of this new pump is simple and effective, and its action is so arranged that accidental breakage is impossible. It occupies less space than any other kind of pump in use, does not interfere with the working of the shafts, and unites lightness with a degree of durability almost imperishable. By means of this hydraulic machine water can be raised economically from wells o any depth; it can be worked either by steam-engine or any other motive power, by quick or slow motion. The following statement presents some of the results obtained by this hydraulic machine as daily demonstrated by use:—

1.—It utilises from 90 to 92 per cent. of the motive power
2.—Its price and expense of installation is 75 per cent. less than the usual pumps employed for mining purposes.
3.—It occupies a very small space.
4.—It raises water from any depth with the same facility and economy.
5.—It raises with the water, and without the slightest injury to the apparatus, sand mud, wood, stone, and every object of a smaller diameter than its tube.
6.—It is easily removed, and requires no cleaning or attention.

BASTIER'S PATENT CHAIN-PUMP may be seen daily in operation at Messrs. SAMUEL BERGER AND Co.'s Patent Rice Starch Works, Bromley-by-Bow, London, E. Cards of admission to be had on application to the inventor and patentee, Mr. J. U. BASTIER, C.E.; or to Messrs. J. JACKSON and Co., Engineers, 17, Gracechurch-street, London.

J. U. BASTIER and Messrs. JACKSON and Co. will CONTRACT to ERECT the PATENT PUMP, and will GUARANTEE IT FOR ONE YEAR, or will grant licenses to manufacturers, mining proprietors, and others, for the use of this Invention.
OFFICES, 17, GRACECHURCH STREET, LONDON.

BLAKE'S PATENT STONE BREAKER,
OR ORE CRUSHING MACHINE,
FOR REDUCING TO SMALL FRAGMENTS ROCKS ORES, AND MINERALS OF EVERY KIND.



It is rapidly making its way to all parts of the globe, being now in profitable use in California, Washoe, Lake Superior, Australia, Cuba, Chili, Brazil, and throughout the United States and England.

The above section illustrates Blake's Stone Breaker, just as made the last five years and is fully protected in every part by patents.

Extract from Specification:—A short but powerful vibration is imparted to one or both of the jaws by any convenient arrangement, and combination of powerful levers worked by a crank or eccentric on the main shaft.

LEGAL PROCEEDINGS will be taken at once against any person or persons found making, using, or vending any machine, the construction of which will constitute an infringement on the above patent. Read extracts of testimonials:—

Alkali Works, near Wednesbury.—I at first thought the outlay too much for so simple an article, but now think it money well spent. WILLIAM HUNT.

Welsh Gold Mining Company, Dolgelly.—The stone breaker does its work admirably crushing the hardest stones and quartz. WM. DANIEL.

Our 15 by 7 in. machine has broken 4 tons of hard winstone in 20 minutes, for fine road metal, free from dust. Messrs. ORD and MADDISON, Stone and Lime Merchants, Darlington.

Kirkless Hall, near Wigan.—Each of my machines breaks from 100 to 120 tons of limestone or ore per day (10 hours), at a saving of 4d. per ton. JOHN LANCESTER.

Oxoca, Ireland.—My crusher does its work most satisfactorily. It will break 10 tons of the hardest copper ore stone per hour. WM. G. ROBERTS

General Frémont's Mines, California.—The 15 by 7 in. machine effects a saving of the labour of about 30 men, or $75 per day. The high estimation in which we hold your invention is shown by the fact that Mr. Park has just ordered a third machine for this estate. SILAS WILLIAMS.

For circulars and testimonials, apply to—
H. R. MARSDEN, SOHO FOUNDRY,
MEADOW LANE, LEEDS.
Only maker in the United Kingdom.

Swan Rope Works.

GARNOCK, BIBBY, AND CO.,
CHAPEL STREET, LIVERPOOL,
MANUFACTURERS of FLAT and ROUND HEMP and IRON and STEEL WIRE ROPES for MINING, RAILWAY, and SHIPPING PURPOSES.
MANILLA ROPE of SUPERIOR QUALITY, FIFTY PER CENT. STRONGER and THIRTY PER CENT. CHEAPER than Russian hemp rope.
WIRE ROPE of FIRST QUALITY WIRE, and the HIGHEST STANDARD of STRENGTH.

First Class Silver Medal, Royal Polytechnic Society, Falmouth, 1864.

CREASE'S PNEUMATIC TUNNELLING ENGINE, for SUPERSEDING the SLOW and EXPENSIVE USE of MANUAL LABOUR in SINKING SHAFTS, DRIVING LEVELS, TUNNELLING, &c., is guaranteed to drive through any rock of average hardness at a minimum rate of 1 fm. per diem, and to sink shafts at the rate of 2 fms. in three days.

Mr. CREASE will undertake contracts for sinking shafts, driving levels, &c., at an enormous reduction of time and great saving in cost.

Applications to be addressed (for the present) to the patentee, Mr. E. S. CREASE Tavistock Devon.

Fourth Thousand.

HOPTON'S CONVERSATIONS ON MINES BETWEEN "A FATHER AND SON." Second edition, improved, revised, and enlarged from 112 to 174 pages. Surveying mines with the theodolite and the dial, and also laying workings on plan, illustrated; with numerous plans on ventilation and the working of mines. Price, 2s. 6d.
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THE MINING SHARE LIST

BRITISH DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Total divs.	Per Share.	Last paid
200	Botallack (tin, copper), St. Just	91 5 0	—		488 15 0	5 0 0	May, 1866
10000	British Slate Company [L.]	7 0 0	—		9 per cent.		Mar. 1866
1000	Bronfloyd (lead), Cardigan [L. £15]	12 0 0	—		8 1 0	0 6 0	May, 1866
1200	Bryn Gwyn (lead), Mold, [L.]	9 0 0	—		3 3 6	0 13 6	Aug. 1865
916	Cargoll (silver-lead), Newlyn	15 5 7	24		13 15 0	1 0 0	Feb. 1866
2880	Clifford Amalgamated (cop.), Gwen	30 0 0	8	9 10	35 6 0	0 10 0	June 1865
867	Cwm Erfin (lead) Cardiganshire [L.]	7 10 0	—		19 18 0	1 0 0	April, 1866
128	Cwmystwith (lead), Cardiganshire*	60 0 0	—		352 10 0	5 0 0	April, 1866
280	Derwent Mines (sil.-lead), Durham	300 0 0	—		162 0 0	2 10 0	Mar. 1866
1024	Devon Gt. Con. (cop.), Tavist.* [S.E.]	1 0 0	520	500 520	1024 0 0	7 0 0	May, 1866
358	Dolcoath (copper, tin), Camborne*	128 17 6	—	100	812 10 0	2 0 0	April, 1866
6000	East Carn Brea (copper), Redruth	3 15 0	2		0 5 0	0 5 0	June, 1865
6144	East Caradon (copper), St. Cleer [S.E.]	2 14 6	6	5¾ 6¼	14 3 0	0 5 0	Jan. 1866
300	East Darren (lead), Cardiganshire*	32 0 0	—		111 10 0	2 0 0	Mar. 1866
128	East Pool (tin, copper), Pool, Illogan	24 5 0	—		374 10 0	5 0 0	May, 1866
5000	East Rosewarne (cop., tin), Gwinear	2 15 0	—	36 38	36 0 0	1 15 0	Feb. 1866
1906	East Wheal Lovell (tin), Wendron	3 9 0	—		0 10 0	0 5 0	April, 1866
2800	Foxdale (lead) Isle of Man [L.]	25 0 0	23		2 7 6	0 7 6	May, 1866
5000	Frank Mills (lead), Christow	3 18 6	—	3¾ 4¼	68 0 0	0 10 0	Mar. 1866
5000	Great Laxey (lead), Isle of Man [L.]	4 0 0	22	21 22	3 5 6	0 5 0	Feb. 1866
5908	Great Wh. Vor (tin, cp.), Helston [S.E.]	40 0 0	18	16¼ 17½	4 5 0	0 10 0	Mar. 1866
1024	Herodsfoot (ld.), near Liskeard [S.E.]	8 10 0	39	36 38	9 10 6	0 13 6	Mar. 1866
6000	Hingston Down (copper), [S.E.]	5 10 6	4		36 0 0	1 15 0	Feb. 1866
400	Lisburne (lead), Cardiganshire, Wales*	18 15 0	—		0 10 0	0 5 0	April, 1866
9000	Marke Valley (copper), Caradon	4 10 6	3⅞	3⅝ 3⅞	467 0 0	3 0 0	April, 1866
3000	Minera Boundary (lead), Wrexham [L.]	1 0 0	—		3 5 0	0 2 6	Jan. 1866
1800	Minera Mining Co. [L.], (ld.), Wrexham	25 0 0	—		0 13 0	0 3 0	Mar. 1866
20000	Mining Co. of Ireland (cop., lead, coal)	7 0 0	—	18¼	198 3 0	5 0 0	May, 1866
40000	Mwyndy (iron ore) [L. £4] [S.E.]	3 0 0	—		19 18 11	0 16 1	July, 1865
6000	New Birch Tor and Vitifer Cons. (tin)	1 6 6	—		0 6 6	0 2 6	Mar. 1866
600	Pant-y-Glien (slate) [L.] [800 £15 pd., 100 £20 pd.]	50 0 0	—		0 13 0	0 2 0	Oct. 1865
200	Parys Mines (copper), Anglesey [L.]	50 0 0	—		10 per cent.		Mar. 1866
1123	Providence (tin), Uny Lelant† [S.E.]	10 6 7	24	22½ 25	157 0 0	5 0 0	Jan. 1866
513	South Caradon (cop.), St. Cleer* [S.E.]	1 5 0	—		80 7 6	1 0 0	Feb. 1866
6000	South Darren (lead), [L. £3½]	3 6 6	—		517 10 0	7 0 0	Mar. 1866
6000	Tincroft (cop. tin), Pool, Illogan [S.E.]	9 0 0	11	9¾ 10¼	0 3 0	0 3 0	Mar. 1866
6000	West Basset (copper), Illogan [S.E.]	1 10 0	—		18 1 0	1 0 0	Jan. 1866
3000	W. Chiverton, (ld.), Perranzabuloe [S.E.]	—	70	68 70	26 14 0	0 5 0	July, 1865
400	W. Wh. Seton (cop.), Camborne [S.E.]*	47 10 0	135	125 130	11 7 6	1 15 0	May, 1866
512	Wheal Basset (copper), Illogan* [S.E.]	5 2 6	—		453 0 0	4 0 0	April, 1866
1024	Wh. Exmouth (lead), Chrisow	—	—		619 0 0	1 10 0	April, 1866
1024	Wheal Friendship (copper), Devon	20 0 0	—		—	0 2 6	Oct. 1865
4295	Wheal Kitty (tin), St. Agnes	5 4 6	—		299 0 0	1 0 0	May, 1865
1024	Wh. Mary Ann (ld.), Menhenitot [S.E.]	8 0 0	—		2 19 0	0 1 6	May, 1866
2000	Wheal Rose (copper), Scorrier	—	—		59 17 6	0 10 0	Mar. 1865
396	Wheal Seton (tin, copper), Camborne	58 10 0	195	195 200	1 0 0	0 10 0	Feb. 1866
1040	Wh. Trelawny (sil.-ld.), Liskeard [S.E.]	5 17 0	—	13 14	226 15 0	5 0 0	April, 1866
7000	Wicklow (copper) [L.], Wicklow	2 10 0	—	22¾	53 15 6	0 10 0	Mar. 1866
					15 11 0	0 8 0	Nov. 1865

[* Dividends paid every two months. † Dividends paid every three months.]

BRITISH MINES WITH DIVIDENDS IN ABEYANCE.

1200	Alderley Edge (cop.), Cheshire [L.]	10 0 0	—		11 3 0	0 15 0	Dec. 1864
3000	Bedford United (copper), Tavistock†	2 6 8	1		13 11 6	0 2 6	Oct. 1864
1248	Boscaswell (tin, copper), St. Just	6 15 0	—		1 5 0	0 5 0	May, 1864
240	Boscean (tin), St. Just	20 10 0	—		36 10 0	1 0 0	Mar. 1862
1600	Brixham Hematite Iron [L. £8]	6 7 6	—		0 6 0	0 6 0	Nov. 1864
1800	Carn Brea (copper, tin), Illogan	21 0 0	—		280 10 0	2 0 0	June, 1864
256	Condurrow (cop., tin), Camborne	76 10 0	—		85 0 0	2 0 0	June, 1852
3450	Cook's Kitchen (copper), Illogan	19 8 9	2	1¼ 2	1 7 0	0 7 0	May, 1857
1024	Copper Hill (copper), Redruth	12 0 0	—		2 7 6	—	Sept. 1862
42000	Copper Miners of England [2000 £25 paid, 40000 £100 paid.]						
1055	Craddock Moor (copper), St. Cleer	10 4 0	—		7 12 0	0 4 0	June, 1865
12800	Drake Walls (tin, copper), Calstock	2 1 0	—		0 18 0	0 1 6	May, 1863
3000	Dyfngwm (lead), Wales	12 6 6	—		0 17 6	0 2 6	Jan. 1863
512	East Basset (cop.), Redruth [S.E.]*	29 10 0	14	13 15	126 0 0	1 0 0	Nov. 1864
119	Great Work (tin), Germoe	100 0 0	—		15 0 0	5 0 0	Aug. 1864
10240	Gunnislake (Clitters' Adit) (copper)	4 3 0	—		0 3 0	0 1 6	Mar. 1862
3000	Maes-y-Safn (lead) [L.]	20 0 0	—		1 0 0	0 0 0	Oct. 1864
640	Mount Pleasant (lead), Mold	4 0 0	—		18 18 1	0 7 6	Aug. 1862
250	Nanty Mines (lead), Montgomery	20 0 0	—		7 0 0	1 0 0	June, 1864
5936	North Treskerby (copper), St. Agnes	1 9 0	2½	2¼ 2½	0 13 0	0 2 6	Feb. 1864
5000	Orsedd (lead), Flintshire	0 0 8	—		0 10 4	0 0 8	Mar. 1862
1772	Polberro (tin), St. Agnes	15 0 0	—		7 19 6	0 10 0	Nov. 1863
512	Polbreen (tin), St. Agnes	8 0 0	—		1 0 0	1 0 0	July, 1863
512	South Tolgus (cop.), Redruth	9 10 0	—		74 10 0	1 0 0	May, 1863
496	S. Wh. Frances (cop.), Illogan [S.E.]	18 12 9	16	15 18	370 13 6	1 0 0	Nov. 1863
4000	St. Day United (tin), Redruth	14 10 0	—		0 5 0	0 5 0	Mar. 1864
940	St. Ives Consols (tin), St. Ives	9 15 0	6	4 6	490 10 0	0 10 0	May, 1864
572	Trelyon Consols (tin), St. Ives	15 10 0	—		7 0 0	0 10 0	Sept. 1864
1000	Trumpet Consols (tin), near Helston	11 10 0	—		11 0 0	2 0 0	Mar. 1880
4200	Vigra and Clogan (copper) [L. £5]	5 0 0	—		6 2 6	1 10 0	Mar. 1864
256	West Damsel (copper), Gwennap	38 10 0	—		53 10 0	1 0 0	Nov. 1864
1000	Wheal Basset and Gryills (tin)	7 0 0	4	3½ 4	3 0 0	0 10 0	Oct. 1863
1024	Wheal Kitty (tin), Uny Lelant [S.E.]	3 10 6	—		10 2 6	0 7 6	July, 1864
512	Wheal Jane (silver-lead), Kea	8 10 0	14	8 10	15 0 0	0 10 0	Aug. 1864
896	Wheal Margaret (tin), Uny Lelant	13 17 6	5½		76 5 0	1 0 0	May, 1863
100	Wheal Mary (tin), Lelant	36 2 6	—		288 5 0	4 0 0	Mar. 1864
80	Wheal Owles (tin), St. Just, Cornwall	70 0 0	—		343 3 0	5 0 0	May, 1864
2044	Wheal Tremayne (tin), Gwinear	6 11 3	—		6 1 3	0 5 0	Nov. 1863
8000	Wharfedale Mining Company [L. 10s.]	0 5 6	—		—	0 0 6	Jan. 1864

FOREIGN DIVIDEND MINES.

15000	Cape Copper Mining [L. £10] [S.E.]	7 0 0	10	9⅛ 10⅛	2 12 6	0 10 0	April, 1866
15000	East Indian Coal, Calcutta [L.]	10 0 0	—		—	—	—
25000	Fortuna (lead), Spain [L.] [S.E.]	2 0 0	3		1 3 4	0 3 0	Feb. 1866
10000	Gonnesa (lead) [L.] [5000 £5 paid, 5000 £1 paid]	—			7½ per cent. per annum.		
15000	Linares (lead), Spain [L.] [S.E.]	3 0 0	—		11 6 4	0 5 0	Jan. 1865
9275	New Wildberg (lead)	2 0 0	—		0 12 0	0 2 0	Aug. 1865
50000	Panulcillo (copper) [L. £4] [S.E.]	3 0 0	—		10 per cent.		Yearly.
10000	Pontgibaud (sil.-lead), France [S.E.]	20 0 0	—		2 19 8	0 16 8	Dec. 1865
97500	Port Phillip (gold), Clunes [S.E.]	1 0 0	—		0 14 6	0 1 0	Jan. 1866
20000	Scottish Australian Mining Co [L. £1]	1 0 0	⅞	⅝ ⅞	0 0 3	0 0 3	Jan. 1866
11000	St. John del Rey [L.]. Brazil [S.E.]	15 0 0	54	48 50	64 15 0	1 0 0	Dec. 1865
50000	Victoria (London) [L.] [25000 £1 pd., 25000 7s. 6d. pd.]				10 per cent.		
40000	West Canada Mining Co. [L.] [S.E.]	1 0 0	—		0 19 6	0 2 6	May, 1865

FOREIGN MINES WITH DIVIDENDS IN ABEYANCE.

10000	Alten and Quenangen Uni. (cop.) [L. £5]	4 10 0	—		4 5 0	0 15 0	Nov. 1853
20000	Australian (cop.), S. Australia [S.E.]	7 7 6	—		0 1 0	0 1 0	Dec. 1863
2484	Burra Burra (cop.), South Australia	5 0 0	—		325 0 0	5 0 0	Dec. 1864
12000	Cobre Copper Co. (cop.), Cuba [S.E.]	40 0 0	13	12 14	101 0 0	1 0 0	Jan. 1865
10000	Copiapo Mining Company, Chili [S.E.]	16 0 0	—		6 18 0	0 10 0	Nov. 1862
100000	Don Pedro No. Del Rey [L. £1] [S.E.]	0 14 0	1½	⅞ 1⅛	0 0 9	0 0 9	Dec. 1863
70000	English and Australian	5 0 0	1⅛		1 12 0	0 2 0	Aug. 1864
25000	Gen. Mining Assoc., Nova Scotia [S.E.]	20 0 0	—		21 10 0	1 0 0	June, 1864
68000	Kapunda Mining Co., Australia [S.E.]	1 0 0	—		0 12 0	0 1 0	June, 1864
10000	Lusitanian (Portugal) [S.E.]	2 10 0	—		1 7 0	0 3 0	June, 1865
102815	Mariquita and New Granada [S.E.]	1 0 0	—		0 9 6	0 0 1	July, 1859
43174	United Mexican (sil.), Mexico [S.E.]	28 5 0	2⅛		2 19 0	0 5 0	Sept. 1864
10000	Vancouver (coal) [L. £10]	5 0 0	—		0 15 0	0 5 0	Nov. 1864
45000	Yudanamutana (cop.), S.A. [L.] [S.E.]	3 0 0	1	¾	0 5 0	0 5 0	Aug. 1863

NON-DIVIDEND FOREIGN MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
35000	Alamillos (lead), Spain] L. £2] [S.E.]	2 0 0	1½		Fully paid.
160000	Anglo-Brazilian (gold) [L. £1] [S.E.]	0 8 0	—		Dec. 1863
25000	Capula (silver), Mexico [L. £2] [S.E]	1 5 0	—		Feb. 1864
30000	Chontales (gold and silver), Nicaragua [L. £5]	2 0 0	3¼	2¾ 3¼	April, 1866
10000	Copiapo Smelting [L.], Chili	10 0 0	—		April, 1866
300	Copper Miners' Co. of S. Australia [L.] [150 £100 p., 150 £70 pd.]	—	—		Nov. 1864
75000	Dun Mountain (copper), New Zealand [L.] [S.E.]	1 0 0	—		Fully paid.
50000	East del Rey (gold), Brazil [L. £3] [S.E.]	2 10 0	—		Jan. 1866
12000	El Chico Silver Mining and Reduction Company [L. £5]	4 10 0	—		Jan. 1866
8000	English and Canadian Mining Company [L.]	5 0 0	—		Fully paid.
40000	Fortune (copper), West Australia [L.]	2 0 0	—		Fully paid.
50000	Frontino and Bolivia (gold), New Granada [L. £2] [S.E.]	1 5 0	1	¾ 1	Jan. 1866
80000	Great Northern (copper), South Australia [L. £2] [S.E.]	1 11 0	—		June, 1862
10000	Great Barrier Land, Mining, &c., New Zealand [L.]	5 0 0	—		Fully paid.
24000	Hindostan (copper), Bengal [L. £3]	3 0 0	—		Feb. 1863
100000	Montes Aureos (gold), Brazil [L.] [S.E.]	2 0 0	—		Fully paid.
12000	Nerbudda Coal and Iron [L. £20] [6000 £5 pd., 4000 £3 pd.]	—	—		Aug. 1865
50000	Nova Scotia (land and gold) [L. £2]	1 0 0	—		Nov. 1862
15000	Otea (copper) New Zealand [L. £2] [5000 fully paid]	1 10 0	—		April, 1866
15000	Pachuca Silver Mining Company, Mexico [L. £1]	1 0 0	—		June, 1863
6000	Peel River Land and Mineral [Limited]	100 0 0	—		Stock.
23000	Quebrada (copper), Venezuela [L. £10]	9 10 0	—		
10178	Rhenish Consolidated (lead) [6000 £5 pd., 4178 30s. paid.]	—	—		Mar. 1865
50000	Rosa Grande (gold), Brazil [L. £1] [S.E.]	0 5 0	—		April, 1864
15000	San Pedro del Monte (silver), Mexico [L. £5]	3 0 0	—		Jan. 1866
10000	San Roque (lead), Spain	5 0 0	—		Fully paid.
15000	South Europe Mining Company, Spain [L. £5]	5 0 0	—		Fully paid.
20000	Val Antigoria (gold) [L. £2]	0 10 0	—		
6000	Val Sassam (silver, copper, and lead) [L. £10]	5 0 0	—		April, 1866
5000	Valgodemard Mining Company [L. £30]	15 0 0	—		Mar. 1865
50000	Vallanzasca (gold), Italy [L. £1] [S.E.]	0 12 6	—		Oct. 1864
45000	Victor Emanuel (copper), Italy [L.]	1 0 0	—		Fully paid.
20000	Washoe (gold) [10000 [L.] £5 paid, 10000 £4 paid]	—	—	¾ 1¼	
6000	Western African Malachite (copper) [L.]	110 0 0	—		Oct. 1865.
87900	Worthing (copper, South Australia [L.] [S.E.]	1 0 0	¾		Fully paid.
7500	Yorke Peninsula, South Australia	1 0 0	⅜		Fully paid.

PROGRESSIVE MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
1000	Alt-y-Crib (lead) [L.]	5 0 0	—		Fully paid
3200	Bedol Aur (lead), Holywell	1 0 0	—		Jan. 1866
500	Billins (lead)	3 0 0	—		Fully paid.
1000	Blaendyffryn (sil.-lead) [£10]	2 0 0	—		Mar. 1866
6000	Bolingey Hill Consols (copper)	0 5 0	—		July, 1865
5000	Bottle Hill (tin) Plympton	1 12 6	—		Jan. 1866
200	Brynford Hall (lead), Flint	28 0 0	—		Jan. 1866
500	Bryn Gwiog (lead), Flint	9 0 0	—		June, 1864
30000	Caldbeck Fells (lead) [L. £2]	1 0 0	—	1 1⅛	Mar. 1866
1000	Camborne Consols (copper)	18 10 0	—		Feb. 1864
4600	Camborne Vean & Wh. Francis	11 2 10	1⅛	⅞ 1⅛	Mar. 1866
8000	Cape Cornwall (cop.), [L. £2 10s.]	2 5 0	—		Jan. 1866
12000	Caradon & Phœnix Cons. [L. £1]	0 12 0	—		April, 1865
914	Caradon Cons. (cop.), St. Cleer	30 3 6	—		Nov., 1865
6000	Carn Camborne (cop.), Cambn.	1 19 0	—	1 1¼	April, 1866
4000	Cardigan Consols [L. £5]	4 5 0	—		April, 1866
600	Cardiganshire (lead) [L. £20]	10 0 0	—		Mar. 1866
2023	Carnyorth (tin), St. Just	5 1 0	—		Mar. 1866
20000	Caryafort [3200 £2½ pd., 16800 £1⅜ pd.]	—	—		Mar. 1865
6400	Cashwell (lead) [L. £3]	2 10 0	—		Jan. 1865
66000	Castell Carn Dochan (gold) [L. £1]	0 8 6	—		
3500	Cefn Cilcen (ld.), Flint [L. £5]	2 15 0	—		April, 1866
2500	Central Minera (lead) [L. £5]	3 7 6	—		April, 1866
16000	Central Snailbeach (lead)	1 0 0	—		Fully paid.
3000	Chiverton (lead), Perranzabu.	8 7 6	6½	6 6¼	May, 1866
3000	Chiverton Moor (lead)	4 16 0	5⅛	5½ 5⅝	May, 1866
4000	Clara Unit., Ponterwyd [L. £3]	2 10 0	—		July, 1865
3072	Cleer's Hill (tin), St. Stephen's	0 1 1	—		July, 1864
787	Clijah & Wentworth (tin, cp.)	34 12 0	—		Nov. 1865
3000	Clowance Wood (cop.) [L.]	5 0 0	—		Fully paid.
16000	Coolartra & Bond [L.] [5300 £1 pd., 10700 16s. pd.]				Feb. 1865
50900	Connorree (cop., sulph.) [L.]	1 0 0	19s.	18s. 6d.	Fully paid.
6500	Cornish Clay and Tin [L.]	1 0 0	—		Fully paid.
861	Crane (copper), Camborne	31 4 6	—		Mar. 1866
30000	Crenver and Wh. Abraham [L.]	4 0 0	—		Mar. 1866
12000	Crelake (cop.), Tavistock	3 1 0	—		Aug. 1865
2500	Crowan Consols (cop.) Crowan	5 11 0	—		Dec. 1865
8000	Crowan & Wendron (tin) [L. £1]	0 2 6	—		
1428	Crowlwm (lead), Llanidloes	1 13 0	—		Dec. 1864
6000	Cuddra (cop., tin), St. Austell	4 15 6	—		Feb. 1866
35000	Dale (lead), North Stafford	1 0 0	5s.		Fully paid.
1000	Darren (lead) [L.], Cardigan	9 4 0	—		July, 1865
4076	Devon and Cornwall (cop.)	6 6 3	—		
1024	Devon Wheal Lopes (cop.) [L.]	12 0 0	—		Dec. 1865
656	Ding Dong (tin), Gulval	48 14 6	—		Sept. 1865
20000	Dolfrwynog (gold) [L. £1]	0 15 0	—		June, 1864
25000	Dundaik (copper, lead), [L. £1]	0 10 0	—		Jan. 1864
1000	Eagiebrook (lead) [L. £20]	17 19 0	—		Feb. 1865
1000	East Basset and Grylls (tin)	3 5 0	—		July, 1865
6000	E. Bottle Hill (tin), Plympton	0 6 6	—		Oct. 1865
2000	East Buller (copper)	2 0 0	—		Mar. 1865
2000	East Chiverton (lead)	2 8 6	2¼	1¾ 2¼	May, 1866
2048	E. Falmouth (s.-ld.), Kenwyn	5 0 6	—		April, 1864
6000	E. Grenville (cop.), Camborne	2 19 0	2½	2 2¼	Feb. 1866
4000	E. Gunnislake & S. Bedfd. (cop.)	8 16 6	—		May, 1866
6145	East Jane (sil.-ld.), Cardinham	2 17 6	—		April, 1865
6000	East Laxey (lead) [L. £3]	2 10 0	—		Nov. 1865
8000	E. Polberro (tin) [L. £1] [4000 £1 pd. 4000 12s. 6d. pd.]				Nov. 1864
3986	E. Providence (tin), Uny Lel.	4 15 3	—		May, 1866
5000	East Tresavean	0 10 0	—		May, 1865
6000	East Snaefell (lead) [L. £3]	2 0 0	2	1¾ 2½	Nov. 1864
5610	East Seton (cop.), Camborne	0 11 0	—		Oct. 1865
6000	East St. Just (tin) [L. £5]	3 0 0	—		Jan. 1866
6000	East Tamar (silver-lead)	0 6 8	—		
256	East Tolgus (copper), Redruth	96 0 0	—		April, 1866
1190	E. Wheal Agar (cop.), St. Cleer	12 17 0	—		Jan. 1865
1300	E. Wheal Ellen (cop.) St. Agnes	3 5 0	—		Dec. 1864
2048	East Wheal Grylls (tin, cop.)	3 2 6	—		Oct. 1865
4000	E. Wh. Russell, Tavis. [S.E.]	11 6 0	2½	2¼ 2½	April, 1866
6000	East Wheal Vor (tin and cop.)	5 4 0	—		Mar. 1866
15000	Ellen Unit. (cop., zinc) [L. £2]	1 0 0	—		Nov. 1865
6144	Esther Und. (tin), Cardingham	0 6 3	—		July, 1865
100	For. Land and Mineral Rights	145 0 0	—		
6000	Fostescue Consols	0 12 6	—		
940	Fowey Con. (cop.) Tywardreath	4 18 6	—		Mar. 1866
6000	Furze Hill Wood Cons., Buckl.	1 16 0	—		Feb. 1866
10000	Fursdon (cop.), [L.] [5000 £1 10s. paid]	—	—		Mar. 1865
1026	Garden, Morvah (copper)	5 7 9	—		Aug. 1864
4096	Garlidna Untd. (tin), Wendron	5 7 7	—		Feb. 1866
4000	Gawton (copper), Tavistock	3 5 6	3	2¼ 3	Feb. 1866
6000	Gen. Min. Co. for Irel. (cop.)	4 0 0	—		
5000	Glan Alun (lead), Mold [L.]	1 0 0	—		Fully paid.
30000	Glasgow Caradon Con. (cp.) [L.]	1 0 0	—		Fully paid.
6000	Godolphin Hill, Breage [L. £4]	1 3 0	—		Dec. 1865
2000	Golch Hill (lead), Flintshire	1 13 5	—		Sept. 1865
6144	Gonamena (copper), St. Cleer	5 4 0	—		April, 1866
6000	Gothic (silver-lead) [L.]	2 10 0	—	3 3½	Fully paid.
486	Gramb. & St. Aub. (cp.) [S.E.]	68 0 0	—		Mar. 1865
4100	Great Brigan (cop.), Redruth	6 18 0	—		May, 1865
4096	Great Caradon (cop.), St. Ive.	3 6 0	⅛	⅛ ⅛	April, 1866
10000	Great Devon and Bedford [L.]	2 10 0	—		Mar. 1866
3000	Gt. East Lovell (tin), Helston	1 15 0	—		May, 1866
5000	Great Mona [L. £5]	2 10 0	—		Jan. 1866
5000	Great North Downs (copper)	4 18 0	—		Jan. 1866
40000	Gt. Northern of Ireland [L. £1]	0 10 0	—		
12500	Gt. No. Laxey (I. of Man) [L. £1]	0 10 0	2	1¾ 2	Feb. 1865
6000	Gt. Retallack (sil.-ld., blende)	2 8 6	—		July, 1865
6000	Great S. Chiverton (sil.-lead)	1 7 6	—		April, 1866
6000	Gt. So. Tolgus (cop.), Redruth	0 14 6	⅛	⅛ ⅜	
3000	Great West Chiverton (lead)	1 0 0	—		June, 1864
3313	Great Wheal Baddern (tin)	7 17 6	—		June, 1864
6000	Gt. Wh. Busy (cop., tin), Ken.	15 19 6	—		Feb. 1866
1798	Gt. Wh. Fortune (tin), Breage	25 2 0	2	1 2	Dec. 1865
3072	Gt. Wh. Grylls (tin, copper)	1 12 0	—		April, 1866
10000	Great Wh. Metal, Breage [L.]	2 0 0	—		May, 1865
6400	Green Hurth (lead) [L. £1]	0 1 0	—		
2500	Grit and Stapeley (lead), [L.]	10 0 0	—		July, 1864
4000	Grylls Wheal Florence (tin)	1 9 0	—		April, 1866
6068	Gwydyr Park Con., Llanrwst	1 11 6	—		Feb. 1866
6000	Hallenbeagle (copper)	2 2 6	—		April, 1866
6400	Harwood (ld.), Durham [L. £1]	0 6 0	—		Sept. 1864
5000	Havan (ld.)., Cardigan [L. £5]	4 15 0	—		Mar. 1866
7219	Hawkmoor (tin, cop.) Calstock	3 11 6	—		Jan. 1866
10000	Hazel Grove (sil.-ld.) [L. £1] Flint	0 7 6	—		
5000	Hendre (lead), Flint [L. £5]	4 0 0	—		April, 1865
6000	Hilogan (tin and copper)	0 17 0	—		Dec. 1865
96	Kilmorey (lead)	25 5 0	—		Feb. 1864
6000	Lady Bertha (cop.) [S.E.]	3 16 0	⅛	¼ ⅛	April, 1866
4500	Lanivet [L. £2] [1500 30s. pd.]	—	—		Feb. 1866
3000	Leawood (copper, lead)	1 8 6	—		Aug. 1865
1019	Leeds & St. Aubyn (tin, cop.)	19 13 4	—		Mar. 1866
963	Lelant Cons. (tin), Uny Lelant	35 0 0	—		Mar. 1865
160	Levant (copper, tin), St. Just	2 10 0	—		
4000	Llantwit Vardre (coal), [L. £5]	4 10 0	—		May, 1864
2000	Long Rake (lead), Flint	6 15 0	—		Jan. 1866
2000	Lower Park (ld.), Denbigh [L.]	3 11 0	—		Jan. 1864
6000	Maudlin (copper), Lostwithiel	4 7 0	—		May, 1865
4480	Merllyn (lead), Flint	4 1 6	—		June, 1864
3000	Minera Western Boundary [L. £1]	0 2 6	—		Sept. 1863
4975	Molland (cop.), S. Moulton	3 13 0	—		Aug. 1865
1024	Nangiles (tin, copper), Kea	25 0 0	14		May, 1866
4000	Nantcos (lead [L. £1]	0 10 0	—		Sept. 1864
512	Nant Minera (lead), [L. £20]	6 10 0	—		Jan. 1865
6000	New Clifford (cop.) [L. £4]	2 0 0	—		April, 1866
24000	New Cornish [12000 £1 paid, 12000 12s. paid]				Dec. 1864
6400	N. Crow Hill (ld.), St. Stephen	3 0 0	—		Feb. 1866
6000	New East Birch Tor (tin)	1 2 6	—		June, 1865
6514	New E. Russell (cop.), Tavistk.	0 9 6	—		Nov. 1865
6400	Nether Hearth (lead), Dufton	1 1 0	—		May, 1865
400	New Hendra (tin, cop.), Breage	14 11 0	—		Mar. 1866
6400	New Pembroke (tin and cop.)	0 17 6	—		April, 1866
1024	New Rosewarne (cop.), Gwinear	4 5 0	—		Dec. 1862
6000	New S. Caradon (cop.), St. Cleer	0 16 6	—		Dec. 1865
6000	New Treburget (silver-lead)	0 14 0	—		May, 1866
5775	New Treleigh (cop.), Redruth	4 8 0	—		July 1865
960	New Trevenen (tin), Wendron	8 4 0	—		
470	Newtownards Min. Co., Down	50